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IS THE DISTINCTION BETWEEN MORAL RIGHTNESS AND WRONGNESS ULTIMATE?

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EVERYTHING in morality, I suppose, is the outcome of a process of history. In the genetic sense, therefore, moral rightness is not ultimate. It is clear, however, that the questions of origin and of validity are totally distinct; and we are here concerned with the latter, not with the former. In other words, we have to consider what is 'ultimate' in the way of justification.

This being understood, I can put my contention most clearly, I think, by borrowing, with substantial but necessary alterations, a famous passage in Butler's XIth Sermon. 'When we sit down in a cool hour', I should say, 'we cannot justify any alleged duty or obligation on the part of any agent till we are convinced that it is likely to lead to the greatest overbalance of good expetible by the agent, or at least is not contrary to the same.'

In explanation of this formula it is to be remarked:

(1) that 'duty', 'moral obligation', and 'moral rightness' are here treated as equivalent, although certain moralists have contended that a holy or a saintly will would act righteously but would have no duties and no obligations.

(2) that the word 'good' is employed in the most general sense possible. It includes, but is not confined to, material welfare and sensuous enjoyment. It also includes virtue, aesthetic value, and much besides.

(3) that the 'good' referred to is expetible *by*, not necessarily *for*, the agent, and so that the (occasional) duty of relinquishing one's own maximum advantage in order to bring about a greater advantage to others is expressly provided for.

(4) that the word 'expetible' is employed in order to show that any justification in these matters must refer to a *seeker*, and to what may reasonably be regarded as 'within the seeker's powers'. No seeker can *command* success (if, for no other reason, because futurity is uncertain) but he may try to make the best of his situation.

(5) that although the term 'overbalance' suggests 'moral arithmetic', it need not (and does not here) imply simple addition or subtraction. While sympathetic to the idea of moral arithmetic, I do not assert that the balance is a sum, and am fully prepared to

admit that the reckoning often may, and sometimes should, be cast in an impressionistic rather than literally in a calculative mode.

I should add (6) that, in this discussion, I mean to treat only of such right actions as are voluntary, i.e. those alterations in ourselves or in our environment that we can make or forbear making when we choose to do so, although, in fact, it seems to me that the New Testament is correct in maintaining (and Kant wrong in denying) that love, purity, and other conditions of soul may be morally right. (Indeed, it seems to me to be clear that chastity, say, is not wholly an affair of actions, that it is moral, and that it is 'right' in the general sense of being just what it should be. Hence I infer that it is 'morally right'.)

In view of these explanations, I propose (*a*) to indicate the relation of my thesis to the 'ultimacy' of what is 'morally right' and (*b*) to defend the thesis.

(*a*) I am not contending that every man who acts rightly casts a balance of expetible goods. This would be grotesquely false. All I am maintaining is, to speak shortly, that good is not merely *a* reason for duty but *the* reason for it, in the sense that the maximization of expetible good *is* what justifies action, whether or not the agent understands the character of the justification.

This statement does not imply that 'maximum expetible good' *means* 'morally right'. Indeed, it attests the contrary. Moral obligation is an imperative of action addressed to the will. 'Good' need not imply any relation to the will, and although the qualification 'expetible' does refer to the will, there is a manifest and signal difference between what *can* be sought and what *ought* to be done.

I am willing to grant, therefore, that *ought* is distinctive and *sui generis*. Any proposition containing 'ought' contains *something* that is not inferable from anything else. What I am arguing is that the rightness of what we ought to do (i.e. its justification) *is* inferable from the maximization of expetible good. In other words I am asserting the existence of an ultimate *synthetic* relation between two terms different in their meaning, viz. 'morally right' and 'maximum expetible good'. This synthetic relation, in my view, is the governing intuition in any defensible justification of what is morally right.

This explanation should of itself elucidate my attitude to another sense of 'ultimacy'. 'Ultimate', as well as meaning 'non-inferable', may mean 'unanalysable'. Here, to me personally, it seems plain that 'morally right' *is* analysable. For 'morally right' is 'right' in the general sense in which a correct answer to a question or the total of an addition sum is 'right'; and it is also moral. I am willing to concede, however (although I do not accept the explanation), that this point *may* be misleading, because verbal; that *obligation* is not analysable in the above fashion; and that it is always moral. (If so, I think the proper conclusion is that the 'ought' in *any* normative science is moral, the logical 'ought' being *Die Moral des Denkens*, the aesthetic 'ought' being *Die Moral des Fühlens*, and so forth.)

In certain other senses, however, it seems plain, on any theory, that moral obligation permits of, at any rate, a certain degree of analysis. It surely implies at least a definable relational structure between will (or personality) and circumstance. It may well be true, however (and I think it *is* true), that any such relational structure, although analysable in some ways, is unique and quite distinctive *in its integrity*, and therefore is integrally 'ultimate', at any rate in respect of the synthetic connexion explained above.

(*b*) I proceed, now, to the defence of my view.

(1) It is manifest, on any theory, that *certain* duties have to be justified in the way here specified. For consider personal prudence and self-culture (let us say, 'self-regard') on the one hand, and, in traditional language, 'benevolence' on the other hand (including under 'benevolence' not only the doing of positive good to others but the abstention from doing them harm and from mischievous intermeddling with what is best left alone). These are *duties*; and the essence and rationale of self-regard is quite precisely to promote our own maximum expetible good, the essence and rationale of benevolence being similarly to promote the good of others so far as we are able to do so. Again, if benevolence and self-regard are in conflict, we decide the conflict, if we can, by reference to the greater good on the whole. Benevolence is not always a higher obligation than self-regard (e.g. it need not always be a talented girl's duty to forgo foreign study in some art and give the best years of her life to the care of an ailing parent). On the other hand, benevolence frequently is the higher duty. In support of my first argument, then, I am contending that the reason which makes benevolence, say, a 'higher' obligation, in certain instances, than self-regard is the very reason which makes both benevolence and self-regard themselves duties at all, viz. that attempted maximization of expetible good which is the essence and specific meaning of both of them.

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(2) From this it *follows* that the principle I am engaged in defending is *relevant* to any moral action whatsoever, or, in other words, that it is wholly false to assert that any right action can have nothing to do with benevolence or with self-regard. For every moral action is either self-regarding or other-regarding, and most moral actions, if not all, are both self-regarding *and* other-regarding. The most that can validly be objected to my principle, therefore, is that, in certain instances, duties whose justification is not in terms either of benevolence or of self-regard, nevertheless justifiably override the duties of benevolence and of self-regard. (For it does not follow that a duty which is always pertinent is also always absolute.)

(3) This, I suppose, is the most serious objection that I have to face. The objector urges in effect: 'You are maintaining (are you not?) that benevolence and self-regard, taken together, determine *the whole* of moral obligation, and this (as Butler told us long ago) is notoriously false.'

Obviously, some further explanation is necessary.

In general, when we speak of benevolence or of self-regard as obligations we are referring, at the time of any action, to *future* advantages or disadvantages; and it seems plain that many duties are not justified *wholly* in terms of probable future consequences. Thus the obligation to keep a promise is, in large measure, determined by the past; and the duty of telling the truth may be held, in the main, to be intrinsic to the *present* condition of the moral agent.

Clearly, however, the total good expetible by any action must include every value intrinsic to the initiating act. Hence the *present* intrinsic dignity of truth-telling (when it exists) is included in our principle. Similarly, in the duty of promise-keeping (or of making our later deeds correspond with our earlier words) the *continuity* of our personal dignity and integrity may be very good indeed. For the past may, and often does, enhance values. In other words, we are never dealing with a future to which present and past are irrelevant. On the contrary we are dealing with moral continuants or persons in continuing situations.

For this very reason, however, it should never be forgotten that future good and ill is very important indeed in the justification of truth-telling, promise-keeping, and other such obligations. It is wicked to *give* a malevolent promise, and not less wicked to *keep* one. A malevolent truth is quite as reprehensible as a malevolent lie.

More generally, it seems plain that *one* important reason why we condemn a 'liar' is that a person whose word cannot be trusted is not a dependable, and therefore not a useful, member of society; that any advanced society rests upon trust and credit (i.e. upon promise-keeping); that this consideration may enable us to distinguish between important and unimportant promises (although the obligation of promise-keeping, *qua* promise-keeping, is uniform for all promises however trivial)—in short, that social advantage, principally future-regarding, is of very great moment in these matters.

Moreover, it is a momentous thing (for future-regarding purposes of social stability) that, as we say, certain things 'simply should not be done', or only done for enormously strong and quite exceptional reasons. This consideration, I think, is sufficient to explain (if need be, wholly in terms of future consequences) why a superficial objection to the thesis of this paper is in reality no objection to it. The objection is that, in some particular case, a man may do more good by stealing from the rich (say) and by giving to the poor, than by abstaining from theft. Hence (it is alleged) our thesis implies that there is *no* duty of honesty, but merely a forecast of probable benefit in the particular case; and further that honesty itself does not enter into this forecast. The answer, however, quite plainly is that any such argument concerning probable consequences is *very* improperly stated if the probable consequences, and the signal advantages, of a widespread social policy of prompt and quasi-automatic acceptance of certain *classes* of action as 'simply not done' is not included in the balance of good, and in the boniformity of the social structure.

LA THÉORIE DE L'INTELLIGENCE SELON LA TRADITION ARISTOTÉLICIENNE

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QU'IL y ait, dans la pensée humaine, quelque chose qui dépasse les données de la perception, c'est un point sur lequel, de quelque façon, toutes les philosophies s'accordent. Il s'agit de savoir exactement ce qu'est ce quelque chose. Est-ce un objet nouveau, indépendant des données de la perception? Ou bien n'y a-t-il là que le résultat d'un travail d'élaboration ou de combinaison dont les données sensibles fournissent tout le contenu?

Dès lors quelle est, d'un côté, la portée réelle des constructions du sens commun, de la science et de la métaphysique? Comment, d'autre part, l'objet intellectuel est-il atteint ou comment est-il construit?

Entre les réponses extrêmes que l'on peut donner à ces questions solidaires, l'histoire de la philosophie connaît une voie moyenne dont Aristote fournit la première indication. Une longue tradition s'est inspirée de ses enseignements. Elle s'exprime en des formules qui sont classiques mais que l'on comprend souvent assez mal. Je voudrais ici marquer, sur quelques points que je crois importants, le sens que des travaux récents semblent nous inviter à donner à ces formules.

'Intelligere, intus legere', disaient les scolastiques; et à la suite d'Aristote ils attribuaient à l'intelligence le pouvoir de saisir ce qu'ils appelaient la quiddité, quod quid erat esse, *τὸ τί ἦν εἶναι*, la nature ou l'essence des choses. On peut sans doute mettre dans cette doctrine une prétention dont la naïveté nous paraît énorme et, s'il est certain que la pensée des maîtres de la tradition est très au-dessus des conceptions puériles de leurs vulgarisateurs scolaires, il est sûr aussi que le mystère du monde leur paraîssait moins dense qu'il ne nous semble à nous. Mais la notion de la quiddité n'implique nullement que notre esprit saisisse d'emblée l'explication de la loi des phénomènes dans sa source dernière. Tel est bien plutôt le thème d'une recherche dont le terme idéal est à l'infini. Thomas d'Aquin dit dans le Commentaire de la Physique d'Aristote: 'Quid sit uniuscuiusque natura, hoc non est manifestum'. Ce que l'esprit saisit d'emblée, ce n'est pas la définition essentielle, c'est seulement qu'il y a une essence.

L'objet de l'intelligence est l'être, mais comme entrée de jeu l'être des données sensibles, qui sont de telle et de telle façon. Cette façon d'être est offerte à l'esprit comme de l'être, c'est l'essence. Mais à l'aube de la vie intellectuelle, elle apparaît dans le brouillard le plus confus; elle est la mesure d'être que traduisent les données sensibles que voici; cela signifie, sans doute, en soi une réalité très précise et très déterminée; pour l'esprit c'est un objet vaguement entrevu et dont la détermination précise constitue la tâche illimitée que poursuit toute l'histoire des sciences.

Nous ne savons pas, remarquait déjà Aristote, quelles sont les différences foncières qui expliquent la diversité des phénomènes; alors l'intelligence fait ce qu'elle peut, elle désigne l'inconnue qui lui échappe par les manifestations qu'elle tient; faute de mieux elle prendra les plus superficielles, quitte à les remplacer par des caractères plus profonds quand elle le pourra.

Quand atteindrons-nous la définition essentielle, et l'atteindrons-nous jamais? En somme ce procédé n'est pas fait pour l'atteindre en elle-même mais plutôt pour la circonscrire par une série d'approximations qui resteront toujours dans un autre ordre. Ce procédé n'a de sens pourtant ni de valeur que si on la suppose à l'horizon de l'esprit, comme la limite qu'il vise et dont il se donne le succédané.

Il y a des domaines sans doute où nous approchons fort des définitions réelles. Ce sont ceux où nous construisons l'objet. Encore y a-t-il toujours dans la matière de nos constructions un élément obscur que nous pénétrons mal, et qui fait que l'art le plus précis de l'ingénieur ou du légiste garde toujours un résidu d'obscurité et un coefficient d'incertitude. La science des nombres, sans doute, s'approche de la construction pure, mais à condition d'ignorer ce qu'elle compte et de ne penser qu'aux relations qu'elle établit. Les sciences constructives nous permettent cependant d'entrevoir ce que serait l'intelligence parfaite et qui ne nous est pas donnée: celle d'un esprit qui poserait les choses qu'il compte et la matière qu'il organise,—'durch dessen Vorstellung zugleich die Objekte dieser Vorstellung existirten'. Kant a très bien compris cela et il a profondément marqué la différence d'une intelligence comme la nôtre et d'une intelligence intuitive. Il a certes beaucoup mieux saisi ce qu'est l'intelligence humaine que Descartes, dont les idées simples et l'intuition évidente méritent exactement le reproche de naïveté injustement adressé aux maîtres de la tradition aristotélicienne.

Mais Kant n'arrive pas à justifier la valeur réelle des fonctions intellectuelles. Sans doute il suppose—on ne sait trop pourquoi, par habitude d'esprit,—que les données sensibles viennent des choses. Les liaisons que, selon lui, l'esprit met entre ces données, ne valent que pour nos représentations. Pour qu'elles eussent une valeur réelle, il faudrait qu'elles fussent non pas apportées par l'intelligence aux données sensibles mais qu'elles y fussent trouvées.

L'être et la quiddité de la philosophie traditionnelle ne sont pas des notions intuitives, mais elles sont rattachées à l'intuition sensible. En même temps qu'elles donnent aux données des sens leur pleine signification réelle, elles leur empruntent la garantie d'indépendance et d'objectivité que notre *a priori* humain ne possède pas de lui-même. Il n'y a pas d'intuition intellectuelle, mais la connaissance intellectuelle est si bien associée à la connaissance sensible qu'elle participe de son caractère intuitif. A vrai dire il n'y a pas deux consciences, l'une sensible, l'autre intellectuelle, il n'y en a qu'une, à la fois sensible et intellectuelle. Thomas d'Aquin n'hésite pas à écrire: 'non proprie loquendo sensus aut intellectus cognoscit, sed homo per utrumque'.

Après le réalisme paradoxal et sans nuances de certains contemporains, le réalisme traditionnel fait figure très modérée. Ce n'est pas ici le moment de préciser la valeur réelle de la connaissance sensible. Il suffira de noter, au point de vue qui nous intéresse, le principe fondamental du réalisme aristotélicien. Il affirme qu'à la base de nos connaissances sensibles, dans les perceptions élémentaires, une donnée réelle est le terme direct de l'acte de connaissance. Ceci n'implique nullement la méconnaissance naïve des illusions des sens.

Les images et les perceptions elles-mêmes sont des édifices compliqués qui pourraient, théoriquement, ne fausser ni la valeur ni la portée des données premières, mais qui, en fait, s'en écartent souvent. Retenons seulement qu'au point de départ de tout cela, la conscience est en contact direct avec le réel. Réel, bien entendu, qui n'a rien de substantiel, qui n'est que du phénomène, mais du phénomène indépendant de moi et donc, ce qui suffit, du non-moi. Encore faut-il ajouter que ce n'est pas la conscience sensible comme telle qui saisit la valeur réelle du phénomène, mais la conscience intellectuelle. 'Quamvis esse sit in rebus sensibilibus, tamen rationem essendi vel intentionem entis sensus non apprehendit.' Le problème qui se pose alors est précisément de savoir comment l'intelligence atteint son objet propre.

On pourrait imaginer ici une connaissance juxtaposée à la sensation et atteignant comme elle, en même temps qu'elle, une réalité donnée et parallèle. Ce serait revenir à l'intellection intuitive par elle-même, mais en l'assimilant à une intuition sensible. La vue atteint la couleur du fruit, le goût en saisit la saveur, l'intelligence en conçoit l'être et l'essence. Mais l'intelligence est d'un autre ordre que la sensation.

Dirons nous que l'intelligence conçoit son objet dans l'immanence de la pensée, à part de la sensation et des images, dans l'ordre des notions pures. C'est encore l'intellection intuitive, et si l'on respecte cette fois son caractère propre, elle perd, d'autre part, tout contact avec le réel et toute consistance psychologique.

Il n'y a pas d'intuition intellectuelle mais, associée à l'intuition sensible, l'intelligence est, en quelque sorte, intuitive par intermédiaire. Comment cela se peut-il, sinon parce que les données sensibles elles-mêmes sont de l'être et qu'ainsi, en elles, est contenu l'intelligible?

C'est ici qu'intervient la théorie de l'abstraction. Les termes en sont classiques, et l'on peut, en les concevant à la manière des pièces d'un mécanisme matériel, en faire une chose parfaitement ridicule. En vérité intellect actif, intellect passif, conscience sensible, ne sont que des aspects divers composant ensemble la réalité une qu'est la conscience humaine; et, en outre, dans ces premières connaissances qui contiennent le germe des progrès futurs, cette conscience n'est pas séparée des choses, elle n'est pas représentative mais directement cognoscitive et tout entière tournée vers les choses immédiatement présentes.

Que serait une conscience purement sensible? Elle n'est pour nous qu'un objet de théorie. La conscience que nous avons des choses est, d'emblée, humaine et intelligente. L'objet est, d'emblée, intelligible. Il est distinct du sujet; il est possible puisqu'il est; il ne pourrait pas, tant qu'il est, ne pas être; s'il est composé de parties, il est plus grand que chacune d'elles. Tout cela, avec bien d'autres choses, que nous savons immédiatement, est nécessaire et vaut pour toujours et pour tout esprit,—Kant l'a montré en des pages immortelles.—Tout cela ne peut se résoudre en sensations,—Kant encore l'a montré.—Il s'agit donc de passer du fait sensible, momentané et subjectif, à la nécessité objective du monde réel. Ce passage, que Kant explique par les catégories de l'entendement et, en dernière analyse par l'unité transcendantale de l'aperception, l'aristotélisme l'explique par l'intellect actif.

Tout aussi bien que pour Kant, le rapport de l'intelligible au sensible est à concevoir, selon l'aristotélisme, comme un rapport de forme à matière. Mais au lieu que ce rapport relie les éléments de nos représentations, il exprime la structure même des choses, aussi bien que du sujet connaissant. L'intellect actif 'illumine' les données sensibles, dit la formule traditionnelle. Cette métaphore signifie que dans l'atmosphère intellectuelle qui est celle de la conscience humaine, les données sensibles prennent une valeur qu'elles n'auraient pas dans une conscience purement sensible; sous cet éclairage l'aspect intelligible des choses s'offre à 'l'intellect passif'. Pour que la connaissance ainsi déterminée ne soit pas trompeuse, il faut que cet aspect intelligible soit un élément de la réalité. Comment cela se peut-il? Il faut que 'l'illumination' n'apporte à l'objet rien qui ne s'y trouve déjà et que pourtant le résultat en soit une élévation de ce même objet au-dessus de l'ordre sensible où l'intelligence le trouve.

Précisément 'l'illumination' a un effet négatif. Cajetan, le commentateur qui en a fait une analyse célèbre, la définit ainsi: 'consistit in acceptione unius et non alterius sibi conjuncti: eius proprius quasi effectus est apparere unum non apparendo aliud.' Le rôle propre de l'intellect actif est donc de faire apparaître uniquement la 'quiddité' abstraite, en la débarrassant des déterminations locales, momentanées et subjectives de la sensation.

Mais alors, n'est-ce pas là un appauvrissement de l'objet et en somme sa dégradation plutôt que son élévation? Il faut concevoir les déterminations particulières comme étant, en un certain sens, une limitation de l'essence intelligible. Il est bien vrai que la notion abstraite, dans son indétermination schématique, est inférieure à la richesse concrète des percepts sensibles. L'intelligence intuitive dont Kant rêvait, verrait dans l'essence universelle, non seulement sa loi nécessaire, mais toutes ses réalisations possibles. Mais, tout compte fait, mieux vaut la loi objective et nécessaire dans son indétermination, que la richesse sensible dans sa limitation subjective.

Il reste que l'intelligence humaine trouve dans la sensibilité un complément dont elle a besoin et sans lequel son objet reste vague et inconsistant. L'âme, forme du corps, n'est point faite pour la pensée pure. Toutes les thèses de l'aristotélisme se soutiennent et se lient logiquement.

MÉMOIRE, CONNAISSANCE, VÉRITÉ

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MÉMOIRE.

DANS une opération de la mémoire, l'analyse relève ces trois éléments: l'acte ou la chose dont le sujet se souvient; le souvenir en lui-même; un intervalle entre le souvenir et son objet.

Cet intervalle, c'est une vacance de l'attention durant laquelle l'objet du souvenir est tout comme s'il était *oublié*: on n'y pense pas. Il y a donc *une discontinuité formelle* entre les deux termes dont la mémoire est la relation, l'objet et le souvenir de l'objet.

Les théories traditionnelles cherchaient à expliquer la mémoire en niant la réalité de cette discontinuité. Quelque chose de l'objet persiste dans la conscience et surgit dans le souvenir, empreinte, forme, image ou activité ralentie. Ce type d'explication postule donc une identité partielle entre les deux termes de l'opération, ou du moins une continuité foncière dans l'ensemble du phénomène. L'hiatus signalé ne serait qu'une apparence.

Or, l'insuffisance de cette explication éclate dès qu'on remarque que *les moyens* par lesquels un souvenir peut être assuré, sont indifférents. Ce qui se produit entre le moment où l'objet est perçu et le moment où l'on s'en souvient, c'est l'emploi d'un procédé technique quelconque, retenu parmi d'autres possibles. Ainsi, la discontinuité entre les deux termes est, dans la mémoire, un caractère fondamental. L'oubli intercalaire entre dans la définition du phénomène: il est le lieu des procédés interchangeables.

Cela étant, on aperçoit que c'est ce discontinu qui donne à la mémoire son caractère proprement *spirituel*. S'il n'y avait là que le transport des propriétés de l'objet jusqu'à son souvenir, une activité toute matérielle suffirait. Une simple continuité de l'activité du sujet ne demanderait que des opérations tout organiques. Ce qui fait que la mémoire est spécifiquement un acte psychologique, et non purement organique, c'est la discontinuité sur laquelle nous avons insisté.

CONNAISSANCE.

Une connaissance *se communique* d'un esprit à un autre. Dans une telle opération nous retrouvons *une discontinuité formelle*, celle de deux consciences liées à deux corps extérieurs l'un à l'autre.

Selon la philosophie classique, cette discontinuité n'est qu'une circonstance secondaire. Rien n'en est retenu pour l'explication de la connaissance en soi. La nature de celle-ci est déjà toute donnée dans la pensée préalable de celui qui renseigne ou qui persuade l'autre. C'est dans un esprit individuel qu'apparaît d'abord *la continuité* foncière de la pensée. Pour les classiques l'entente de deux esprits est un phénomène à l'instar de l'unité d'une seule conscience.

Cette conception traditionnelle rencontre des difficultés insurmontables. Comment l'accord de deux pensées est-il possible? Selon nos philosophes, ce sera de deux choses l'une: ou l'accord résulte du fait que les deux esprits saisissent un seul et même objet (réalisme), ou bien cet accord ne manifeste qu'un parallélisme, le jeu des lois de la pensée identiques chez les deux esprits (idéalisme).

Mais dans le cas d'une réalité en soi, objet commun des deux connaissances, sur quoi se fonde-t-on pour dire que cet objet existe et pour dire qu'il est le même? Sur l'accord des deux esprits, et sur cela seulement.

Dans le second cas, sur quoi l'idéaliste se fonde-t-il pour affirmer et reconnaître des lois identiques réglant les deux pensées? Sur l'accord possible ou dûment constaté des deux esprits, et sur cela seulement.

Donc, loin que les caractères propres de la connaissance soient entièrement établis préalablement à tout fait de communication de deux esprits, ce sont des faits de ce genre qui servent à les affirmer. De quelque manière qu'on la conçoive ou qu'on l'explique, la continuité de la pensée c'est cela par quoi l'accord s'établit entre termes différents, elle n'est qu'un discontinu surmonté. Ce n'est pas par sa continuité propre et préalable qu'elle le surmonte, c'est dans le fait de combler cet intervalle qu'elle consiste essentiellement.

La connaissance n'est pas quelque chose de continu en soi qui se rétablit par-dessus la discontinuité des sujets multiples, mais quelque chose qui naît de cette discontinuité même.

La discontinuité des sujets multiples apparaît ainsi comme essentielle à la connaissance, de même qu'une discontinuité réelle est apparue comme essentielle à la mémoire. S'il n'y avait qu'un seul sujet, la continuité foncière de son activité propre ou de son corps lui suffirait toujours. Il demeurerait au plan psychologique inférieur, celui de la mémoire motrice, des habitudes, des instincts, des intuitions confuses. Jamais il n'aurait besoin de faire monter le contenu de sa conscience jusqu'au plan de la connaissance proprement dite, où ce contenu psychologique acquiert *une forme* qui le rend disponible et transportable d'un esprit à un autre.

VÉRITÉ.

Nous trouvons une troisième discontinuité dans l'opposition de deux groupes d'individus dont l'un affirme précisément cela que l'autre nie. Les deux croyances incompatibles où communient respectivement ces deux collections d'esprits attirent notre attention sur la dualité de *la connaissance* et de *la vérité*. La connaissance est chez les deux partis mais la vérité ne peut être que chez un seul.

Le sens commun, conformément à son réalisme pratique, voit dans l'erreur le fait, pour le sujet connaissant, de *manquer le réel*. Celui qui se trompe ne pose pas l'objet, ou il pose un objet faux. A côté de la réalité on fait donc une place à quelque chose de sui generis, *l'apparence*, qui tantôt correspond au réel, tantôt ne lui correspond pas.

Le philosophe idéaliste s'en tient à une attitude en somme très semblable à celle-là. Pour lui, l'erreur se ramène à une application incorrecte des lois de la pensée.

Ces deux interprétations se heurtent à la même conséquence. Si connaître c'est saisir l'objet réel, ne pas le saisir c'est ne pas connaître. Si connaître c'est appliquer les règles de la pensée, appliquer incorrectement ces règles c'est ne pas connaître.

Or, ce n'est nullement expliquer la connaissance que de l'opposer à la fausse connaissance. Sous l'une et l'autre forme, l'activité spécifique de l'esprit demeure irréductible.

L'erreur des doctrines traditionnelles est de confondre connaissance et vérité, croyant devoir définir et expliquer la première de ces deux notions par la seconde, ou en même temps que celle-ci.

Pour poser dans l'activité de l'esprit *le plan de la connaissance*, il suffit de considérer cette activité *au sein d'un groupe de sujets d'accord sur les mêmes conventions et sur les mêmes fins*. La pensée se développera parmi ces associés conformément à leurs communes convenances; les propositions n'exprimant que ce sur quoi les individus s'accordent, l'idée d'une valeur de ces propositions qui serait superposée à leur opportunité (et qui serait leur vérité absolue) ne se pose pas.

S'il n'y avait jamais qu'un seul groupe d'esprits constamment d'accord, à supposer que des jugements soient formulés au sein de ce groupe, le seul critère de la valeur de ces jugements serait leur utilité ou leur degré de convenance. Mais un groupe d'opposants suffit pour forcer l'activité psychologique à monter du plan de la connaissance quelconque ou de la commune convenance, *au plan de la vérité*.

Si un jugement est conforme aux convenances d'un groupe, sa négation peut être conforme à celles d'un autre groupe. C'est par ce conflit qu'il apparaît qu'une valeur peut et doit être prise en considération, *qui serait telle que, reconnue à un jugement, elle serait par le fait même refusée à sa négation, et cette valeur est la vérité.*

La vérité est la propriété d'une connaissance à laquelle on reconnaît *une valeur absolue*, c'est-à-dire indépendante de toute considération d'utilité ou de convenance. Ce qui conduit les esprits à retenir et à conférer une telle valeur, c'est une controverse menée à bonne fin. Deux groupes opposés par des croyances ne désespèrent pas d'aboutir à un accord sur une seule des deux thèses antagonistes, et de cette issue du conflit il résultera que la proposition triomphante *vaut en soi*, par-delà les convenances de l'un et de l'autre groupe.

La supériorité de cette valeur de la vérité, on aperçoit ainsi qu'elle consiste non seulement dans le fait d'être indépendante des convenances d'un ou de plusieurs groupes, mais d'être *unique*. Le fait de reconnaître la qualité de la vérité dans une proposition implique que l'on refuse cette qualité à d'autres propositions bien déterminées.

La logique, ce sera l'ensemble des règles ou des procédés qui servent à maintenir, par voie d'élimination des propositions fausses, cette unicité de la vérité, cette *pointe* de la valeur théorique absolue.

Et la croyance réfléchie, ce sera le sentiment de cette valeur indéfectible. Croire à une vérité, c'est la libérer des faits. Le loup qui se jette sur l'agneau et le dévore n'a pas besoin d'apprécier le témoignage de ses sens: sa connaissance est confondue avec son action. Au contraire le savant sait que le théorème dont il ne doute plus demeurera vrai et exclura tout ce qui le contredit, quelles que soient les apparences de démenti que les faits peuvent produire.

L'unicité de la vérité s'explique ainsi par le caractère absolu de sa valeur propre, supérieure à toute convenance. La vérité ne s'oppose pas à l'erreur comme ce qui vaut s'oppose à ce qui ne vaut pas, mais comme une valeur d'un autre ordre. *Si l'erreur n'avait jamais aucune valeur, la vérité n'aurait pas de valeur absolue.* Si la vérité était double, quelque convenance viendrait toujours départager ses deux expressions, et la valeur de la formule ainsi préférée ne serait en fin de compte que relative.

Cette explication du caractère spécifique de la vérité s'appliquerait aussi à *la réalité objective*, commune élaboration des esprits discutant et enfin d'accord sur un monde unique de représentations, qui ne coïncide avec aucune de leurs représentations particulières, et qui dépasse celles-ci par *une consistance infinie.* L'univers un et objectif du sens commun, le monde extérieur est un chef-d'œuvre élaboré par l'entente des générations, et non un objet peu à peu exploré et reconnu. De même la science, répertoire ordonné des jugements vrais, est un chef-d'œuvre de la connaissance élaboré par l'effort concordant des savants, mais non pas la lecture d'un texte dont ils auraient trouvé le chiffre. Nulle contradiction dans le fait de *croire* à ce réel et à cette vérité, car y croire c'est les élaborer.

On voit l'importance, dans la vie spirituelle intégrale, des discontinuités dont le désaccord de deux groupes sociaux est l'exemple caractéristique. Pour la philosophie traditionnelle cette discontinuité n'était qu'un accident à expliquer par l'erreur de l'un au moins des deux groupes. Connaissance et vérité étaient données ensemble chez celui des deux groupes qui a raison. Selon nous l'antagonisme des deux accords n'est pas uniquement une occasion de mieux discerner le vrai, c'est un élément essentiel pour l'explication du caractère spécifique de la vérité, *son unicité.* Toute autre doctrine présuppose ce qu'il s'agit d'expliquer: elle pose *l'unité* comme donnée en soi.

CONCLUSION.

L'insuffisance des théories de la connaissance les plus répandues résulte d'une méprise sur la nature véritable *de l'explication* en général. On s'obstine à expliquer la connaissance par certaines connaissances typiques, la vérité par certaines vérités, dites premières ou nécessaires, la mémoire par certains modes, réels ou possibles, de réminiscence. Plus généralement, on croit rendre compte de *l'ordre* en général en le ramenant à *un certain ordre*, et dire ce que c'est que *la valeur* en la concevant sur le modèle *d'une certaine valeur.*

Expliquer véritablement ce n'est ni choisir un cas éminent, ni raffiner la chose à expliquer jusqu'à la considérer à l'état pur. Ce ne sont encore là que travaux préparatoires. Expliquer une chose, c'est trouver de sa première expression *un substitut* qui la ramène à des ordres préalablement définis et sur lesquels l'accord est fait. Plus le substitut est *différent* de l'objet auquel il est substitué, plus éminente sera la valeur intrinsèque de l'explication.

C'est pourquoi, relever dans la pensée *sa continuité,* logique ou psychologique, ce n'est pas l'expliquer, c'est seulement la décrire. Celui-là, au contraire, est sur la voie d'une explication véritable, qui situe la pensée dans les relations d'une multiplicité de termes, différents et extérieurs, lesquels deviennent des sujets connaissants et des esprits à mesure qu'ils réalisent mieux l'accord entre leurs activités respectives.

A GRADATIONAL VIEW OF THE NATURE OF EVIL

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THE endeavour to clear up some confusions in the various traditional doctrines of the nature of evil has led to the theory which is presented here in outline.[1] It undertakes to preserve the sound elements of older views and to avoid obscurity of issues, insufficient respect for fact, and undue complacency or depression.

Wholesale and unqualified condemnation of the world, and likewise suave dismissal of evil as unreal, are plainly at variance with experience and self-refuting. An utterly worthless world could not include pessimistic judges of itself; a world warranting complacency would not involve the alleged illusory evils or errors of mortal mind. Value, whatever its more adequate definition, has the essential character of bi-polarity. Using the terms good and evil in the broadest sense to designate value positive and negative, we are bound to say that if either good or evil is admissible both must be. Our problem is to understand the relation between these two and the essential character of the world which the perception of their relation serves to reveal.

Only the briefest résumé is possible of the main traditional views of this relation, but it may serve to introduce the theory which it is the purpose of this paper to present. The absolutist description 1. [illegible]
of evil as essentially imperfection or limitation of finite being replaces the moral distinction good-evil by the metaphysical infinite-finite, and thus virtually dismisses the distinctive value-aspects of the problem before us. Absolutism pays for its theodicy with its ethics. The reduction of good and evil to pleasure and 2. [illegible]
pain ignores the variety and complexity of value; a standard other than pleasure-pain is needed if pleasure and pain are to be tested, graded, and so integrated with other values. The reduction of good and evil to self-denial and self-assertion narrows unduly the 3. [illegible]
range of value, and even in this narrow range is disclosed as largely artificial. What we condemn in the vicious man of whatever variety is not his self-assertion but rather the sort of self he has chosen to assert and the sort of self he has chosen to deny. The issue between egoism and altruism, apparently insoluble at lower levels of conduct, is at the highest levels meaningless. The

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[1] This paper is an abstract of the last chapter of a volume on *The Nature of Evil* which is to be published this winter by the Macmillan Company, New York.

social pessimist's explanation of evil as due to the corrupting influence of civilization, while it serves as a corrective of cultural complacency, is nevertheless one-sided. The advance of civilization is the spread and intensification of all available values, positive and negative: a great opportunity but also a grave hazard: it shows how high man can rise but also how low he can sink.

The chief confusion, where evil is treated at all seriously in these views, seems to be due to the tendency to treat good and evil as distinct things or aspects or qualities or specific conditions, as if we could say of *x* that it is and remains good and the good, and of *y* that it is evil and the evil in the world. The realm of value positive and negative, however, is relational and is not to be thus isolated in certain specific areas of experience. The value-character of existence is a character postulated, and in its postulation involving a demand for its realization or a demand for its negation, and in both demands a fundamental recognition of higher and lower and an incipient or determined preference.

The world we live in is a vast concourse of activities self-persisting, counteracting, tugging and urging. Things are not indifferently on a par; they form some sort of hierarchy. The very outlook of the philosophy of value is gradational. What the specific order of gradation is, constitutes the special problem of axiology in its various branches, logical, aesthetic, ethical. That there is some sort of hierarchy, however, that there is higher and lower in the world, is not a conclusion of the philosophy of value but its prime presupposition: some things or directions of activity are preferable, worthier than others. Grant this way of looking at the world, for unless we do, the problem of value not only cannot be solved but cannot even arise: what, from such a point of view, is evil?

In this gradational view of things evil is literally degradation: the yielding of the higher to the lower in the scale of being, the effective down-pulling incursion of the lower against the higher. Our judgement as to what in any specific case is higher or lower governs our respective judgement of good and evil and thus serves to reaffirm the validity of this definition. The hierarchy involves difference in complexity and in range of categories and significance; it points from mechanism to life, to consciousness, from unconscious and non-rational to self-conscious and rational activity, from law-conforming process to action on principle and in pursuit of ideal ends. That the higher activities are not as common as the lower is an observation neither surprising nor relevant to the reflection it is intended to convey. The apex of the pyramid is not any the less apex because it covers less area than the base. Was there a long time when there was neither man nor man's thinking and valuation in nature? All the more clearly, then, should we recognize that nature among its other capacities had and has the making of personality in it. The lower we perceive the sub-human range of nature to extend, the clearer evidence should we find, in nature's attainment unto personality, of its dynamic, upward-tending character. But we should also recognize the arduousness of this attainment. We should be on our guard not to over-simplify our cosmology either in the manner of the subjective idealist or of the materialist. The tug of the lower and the urge of the higher, the 'flesh' and the 'spirit' are both in and of nature, each in its sphere persisting, each in relation to the other and overarching to dominate the other.

The perception of the cosmic process as gradational in character and the personal response to this perception find expression in the various categories of the philosophy of value. Thus the self-maintenance of the higher and its reaching to ever fuller realization and enhancement is progress, whether cosmic, biologic, or human-social. The down-pulling incursion of the lower against the higher, if successful on the human level, involves the agent in varieties of vice. The effective resistance of man to this baser invasion is virtue. The self-satisfaction of the person at any stage of being is complacency and marks stagnation: we may call this the sin against the Holy Ghost. The inability to maintain oneself on high ground, if due to the conviction that the universe is callous or hostile to the enhancement of worth, gives rise to a consciousness of frustration, the tragic sense of life.

If we survey 'normal' valuation in various fields of experience, our view of the nature of evil finds ample warrant and illustration. Pain, disease, and death involve the threatened or actual disorganization and degradation of bodily structure, the breakdown of highly complex and articulated tissue into tissue cruder or more elementary. The careers of microbes and bacteria are in their own way as natural as ours: unnatural and evil is their ascendency, in disease, over the higher course and career of man. In the realm of the so-called higher values evil manifests itself similarly as degradation, perversion, frustration. Error and fallacy involve the mind's failure to maintain the intelligent level, the usurpation of the logical role by sub-logical faculties or processes. So again beauty is always relative to a certain development of taste, culture, and refinement. What satisfies a crude taste may prove wearisome or repulsive to a more cultivated nature, and enjoyable to it only when itself becomes depraved. So jazz is good music—for savages, but not for the heirs of Bach and Beethoven. In the modern economic system evil is flagrantly manifest in the brutalizing and mechanizing of human life. Whether nature is vicariously humanized by modern industry, or whether human life itself is dragged down to the level of brute matter depends on the objectives that dictate the course and direction of our technically expert society. In the moral realm more narrowly conceived, the same principle holds true. That which is natural to the beast may well be a vice in man. In fact the beast is never beastly; for beastliness is not merely animality: it is the degradation of the human to the brutish level, a level natural to the beast but unnatural to man.

This idea of vice as essentially self-degradation St. Augustine has expressed in words of profound insight which I beg to quote here: 'When the will abandons the higher, and turns to what is lower, it becomes evil, not because that is evil to which it turns, but because the turning itself is perverse.'

The view of evil which is here outlined recognizes unflinchingly its reality, but is not on that account plunged in pessimistic despair. It is nowise to be mistaken for the complacent theory of evil as the mere shadow in the picture or the discord swelling the larger harmony. Evil is not somehow good any more than sinking is somehow rising. Evil is evil and the opposite of good, contrary in course and direction. But it is a fact that what at a lower level and from a lower point of view is good discloses from a higher point of view its insufficiency, and adherence to it at the higher level becomes evil. In that sense, but in that sense only, we could say that all good is somehow evil. So far at any rate is our view removed from complacency.

The vaster the field of attainment and advance before us, the greater is the range of possible error and frustration. Indeed the perception of a certain value as in some respects inadequate and unworthy is the first step in the attainment of the higher and worthier value. Life does not lose but gains in tragic hazard as it gains in prospect and in dignity. Thus we see again that neither good nor evil are ever isolated things or aspects or qualities, but that these two always connote opposite directions of process, the counteraction of which constitutes the drama of our life.

Accordingly, it is of the essence of value that it admits of no final terminus of attainment. Perfection has its base, of course, but its base is a spring-board. Perfection is perfectibility, and the real infinite is an infinitude of capacity. The revision of traditional theological conceptions, particularly in the notion of Divine perfection, which this view demands, cannot be stated here in any detail. It may, however, be pointed out that the perplexities of traditional creationism and theodicy are largely due to the initial assumption of supreme good as completed plenitude of perfection, a perfection all past perfect or present absolute, without prospect or problems. The revision of this kind of doctrine which the gradational theory demands enables us also, in the interests of a more truly moral conception of the universe, to be rid of utopianism, both of the traditional sort and of that subtler variety which persisted even in Kant's conception of the highest good. There is no coming to terms with evil, not ever. Only he straightforwardly 'accepts the universe' who is prepared to accept it unreservedly as a battleground. The pursuit of truth is always through the clearance of error, and virtue is in resistance to vice, and beauty is won through the refusal of ugliness. In this sense evil is always relative to good; but, paradoxically, if we neglect to perceive and resist it as evil, then it becomes evil absolute and utterly damns the very man who makes his peace with it. The gradational conception of the nature of evil thus expresses essential characteristics of our logical, aesthetic, and moral activity, does justice to the complexity and dynamic hierarchy of nature, and points to an idea of perfection which does not nullify the fundamental character of value of which perfection is supposed to be the apogee.

(4)

COSMIC PROCESS AND LIVING ACTIVITY

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MY thesis is: that the concept of Life is concrete and universal; that the representation of Matter, Life, and Mind as autonomous stages or levels of a cosmic evolution falsifies the real; that the concept of Mind is one in essence with the concept of Life in the meaning that consciousness is essential to life; that the opposition between cosmic process and living activity is not an opposition between matter and life but the antithesis of two determinant principles, mechanism and finalism, both essential to the concept of Life.

I will give, first, my reason for holding that the concept of mind cannot be dissociated from the concept of life; and, second, my reason for holding that cosmic process cannot be dissociated from living activity.

1. The argument for the impossibility of dissociating life and mind was first put forward, with peculiar force, by Kant in the second part of the *Critique of Judgement*. He there opposes phenomena which can be explained by efficient causes to those which can only be explained by final causes. Life, including every form of organic activity, comes under the latter division. Life cannot be defined without the category of finality, that is, without affirming a purpose or end as the determining cause of its existence. But finality is inseparable from the concept of mind, and therefore in conceiving purpose or final end, in putting the determining cause in the future instead of in the past, we are in fact affirming mind. If we endow matter with this finality, it simply means that we are conceiving matter as mind. Kant, indeed, is careful to point out, in accordance with his critical principle, that the teleological judgement is regulative not constitutive. In so far as life is a natural phenomenon, apprehended by the understanding, subsumed under the category of causality, it is necessarily conceived mechanistically, but the nature of life compels reason to transcend the constituent idea of cause as *de facto* efficiency with the regulative idea of cause as finality. The organization which characterizes life is not an outcome of physical process, because it implies final cause, and finality is distinctive of mind alone. The main ground on which the autonomy of mind and its independence of life has been affirmed is that mind is identified with consciousness and

consciousness is not necessary to life. Many forms of life are completely without it. Even in the highest organisms, in ourselves, consciousness is an external relation. In no case is it one of the essentials of organic functioning. The personality of an individual human being consists in reason and will, and these are the expression of mind. Our mind is awareness of the external relations of our body, not of its internal living functions. It is only of external relations that any one can become immediately aware. Of the living activity itself we are not only unconscious but it seems as if by a natural disability we have been prevented from being conscious of vital functions in their functioning. Our knowledge of these functions is mediate, indirect, inferential. Our mind sheds a light on our formed and forming actions, a light which illuminates the spatial relations at the moment of action and the temporal relations, the past and future, of the action. In this way mind comes to assume an objective aspect and to manifest itself in the organization of activities which presuppose living individuals. It is difficult, therefore, not to regard mind as autonomous in relation to life, yet a closer attention to the concept of life shows that even where mind may not manifest itself *de facto* it must exist *de jure*.

There are only two ways of conceiving process. Either it is quantitative or it is qualitative; either it is movement or it is change. If we conceive life as process it must fall under one of these categories. The difference between them is the different way in which time enters into the conception of each. Both kinds of process imply succession, both imply the time dimension with its irreversible forward direction, but the reality of time means something different in each concept. For quantitative process or movement time is a series of moments each of which in determining its successor has ceased to exist. The present moment alone exists and all existence belongs to it, the past moments have been but are not, the future are not but will be; and this present moment itself has no duration and is not a dimension, it is a dividing line between past and future. In physics the world is conceived as such a process. Its substance is geometrical. On the other hand, in qualitative process or change time endures. Duration is a continuity of existence, not a continual passing out of existence. The past never ceases to exist, and the present is cumulative. The mind is conceived as such a process. Its substance is spiritual, not material. It is constituted of memory and imagination, the enduring past and the anticipated future.

It is to this qualitative process or change that living activity belongs, and the concept of life contains everything which is characteristic of mind. The lived past endures in the present as the individual nature expressing itself in orderly continuous change, and the determining cause of the changing present and forming future is the purpose or end which is being actualized.

Consider, for example, the complete contrast presented by the history of the granite rock on the mountain-side and the lichen growing upon it. So far as age is concerned the history of the one may be as long as the history of the other, but how different the meaning of time, duration, succession, in the history of each! The granite, an inert material thing, has endured by the resistance it has offered to the disintegrating influences of the movement in which the cosmic process consists. The lichen, a complex though lowly symbiotic organism, has endured by continuous self-originated change. The past of the rock lies behind it, the past of the lichen lives in it. When we compare the activity of the lichen with the inertness of the granite, we see that in the case of the living thing consciousness, were it present, would accord with its nature, would imply no alteration in its nature or addition to its reality, whereas in the case of the rock consciousness would alter its nature completely. When we say that both the rock and the lichen are unconscious the unconsciousness has a different meaning in each case; it applies to the generic nature of the granite, to the specific nature of the lichen. Mind or consciousness is in fact the directing principle of life, and when a living thing is without it we have to account for its absence. One of the main problems of biology is to understand how processes which imply and postulate mind and consciousness in their initiation are carried on in complete unconsciousness. Wherever there is living activity there is directing mind, even though we have to conceive that mind as unconscious.

2. Let us now consider the dissociation of cosmic process and living activity and the reason for repudiating it.

The opposition between the concepts of the inert and the living is in the nature of the causality we attribute to each. In the case of the inert material thing the precedent conditions suffice to account for its actual existence. In the case of the living thing efficient causality cannot be abstracted from final causality, finality is an essential part of the concept. Efficiency is not replaced by finality. The sufficient reason for the existence of the living thing can only be given in terms of efficiency, but the essence of the living thing cannot be defined if we abstract from finality. In fact, if we abstract from purpose we negate the essence.

If this be accepted it follows that mechanism and finalism cannot be antithetical principles. Neither does one negate the other nor do they represent the simple reversion of the direction of a process. Finalism is not mechanism projected forward and read prospectively, and mechanism is not finalism read retrospectively into the historical past. The difference is that the mechanistic principle is solely concerned with the means to the end, the finalistic principle with the end to which the means is directed. The apparent autonomy of the two principles lies simply in the fact that there are things in the universe which exist as means in abstraction from ends, while there are no ends which exist as things in abstraction from means.

The dissociation is in fact the consequence of a false abstraction introduced into the concept of causality in the modern scientific period. Modern science and modern philosophy have rejected the Aristotelian concept of causality. Aristotle's four causes were not four separate kinds of cause, but the distinction of four meanings which together enter into the single concept. Any one of these meanings taken apart is an unreal abstraction. The modern mechanistic concept of nature had no need for any other meaning of cause than that of efficiency. This concept gave science the mechanistic principle and that principle appeared adequate in physics. When it failed to account for the purpose and finality of the living world it sought to explain this appearance as a subjective illusion. When the fact of an ascending direction in evolution seemed to place the determining cause of evolution in the future, it met the dilemma with a theory of natural selection by survival of the fittest in the struggle for life, a theory which could be stated in purely mechanistic terms. Purpose and finality were considered to be the shadow projected into the future by an efficient causality which existed wholly in the past.

What is the alternative? I submit that the dilemma is precisely the same as that which confronted the ancient world when it was thought necessary to separate into two realms the intelligible ideas or universals and the sensible forms or particulars. Aristotle met the dilemma by his principle of individuality. Only the concrete exists, and the concrete is individual, the universal and particular held apart are unreal abstractions. I think the modern dilemma is to be met in the same way. Matter and mind, cosmic process and thinking, taken in themselves are pure abstractions. Life is not a third abstraction. It does not exist in detachment from matter and mind. Life is concrete. Finality and efficiency are its factors. The existence of life depends on the existence of cosmic process directed to ends and on the existence of ends realizable and being realized by cosmic process.

(5)

IS THE DISTINCTION BETWEEN MORAL RIGHTNESS AND WRONGNESS ULTIMATE?

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PHILOSOPHIC language is always ambiguous, and therefore philosophic debate is usually at cross purposes and inconclusive. Hence it would be very rash to plunge into a debate like ours without inquiring first what its terms may mean. Verbally, perhaps, the most obvious meaning of the question prescribed to us is to insinuate that the distinction between moral rightness and wrongness is *not* ultimate, and should be taken as relative and merely quantitative; or in other words that right and wrong shade off into each other and are not ultimately distinct in kind. But I am loath to believe that this is what the committee, or whoever it was that selected our question, really meant by it; for this meaning would clearly be subversive and calculated to undermine morality. I prefer, therefore, to take it as demanding an inquiry into the psychological nature of the predicates 'right' and 'wrong' which are so frequently used in ethics and supposed to be the terms in which what is popularly called 'conscience' expresses itself, and as raising the question whether in ultimate analysis they will stand or will prove to be derivative and reducible to something simpler and less formidable.

Now such an inquiry would unquestionably be important. It would seem to be an indispensable presupposition of ethical theory, which without it could hardly rise above random speculation about ill-defined and uninvestigated terms.

Moreover, to arrive at clearness about the meaning of these terms, it will be necessary to examine their denotation as well as their connotation. For on the latter we can hardly expect any initial agreement. Comparison would only show that moralists entertain very divergent ideas about rightness and wrongness. Many of those who use a Teutonic language seem disposed to hail Kant's account of the Categorical Imperative as the final analysis of the nature of right. Others endeavour to follow in the footsteps of Darwin and Spencer and to regard it as emerging from some non-moral order, or as the feeling which supported the *tabus* of savages.

Without siding with either party in such disputes, should we not first seek light by investigating the *denotation* of these terms?

Let us first inquire in what regions of the moral universe they are endemic, in what languages they are recognized. We shall then, unless I am much mistaken, make the surprising discovery that they are, not universal, but distinctly *rare*. The full-blown distinction between *right* and *wrong*, indeed, appears to occur in English alone of the great civilized European languages. It can not be *translated* into French at all, which has to use *la justice* as its functional equivalent. In German *recht* and *unrecht* seem to be adequate translations; but *unrecht* is a merely negative term. Swedish, I am informed by my friend Professor J. E. Boodin, agrees with German. The Latin languages, like French, show a blank. Etymologically regarded, the primitive perception underlying the distinction, and chosen to illustrate it metaphorically, seems to have been that between *straightness* and *crookedness*: for 'wrong' originally seems to have meant *twisted.* Moreover, both 'straight' and 'crooked' are still colloquially used in a moral sense.

It may humbly be suggested, therefore, that before any extensive structures of ethical theory are erected on the distinction between 'right' and 'wrong', systematic inquiry should be instituted into its geographical or linguistic prevalence. We should ascertain also their equivalents, and consider especially whether they are *exact* and true translations, attesting an identity of moral sentiment, or are only *functional equivalents.*

There is here a great field for research, demanding the co-operation of linguists and philosophers, in which many discoveries may be made, and which is particularly deserving of the attention of an international gathering. For even the most cursory incursion into this field will show that philosophic terms in different languages very often fail to translate each other, and that all languages have *lacunae*, which may be highly significant. For example, the remarkable lack of a vocabulary for *volition* in Greek vividly reveals both the cause and the effect of Greek intellectualism. Greek is equally deficient in terms which can properly be translated 'right', 'wrong', 'duty', and 'conscience', and the functional equivalents in use most misleadingly slur over the dominance of an aesthetic phraseology in Greek ethics and the identity of manners and morals in Greek life.

I have myself encountered great difficulties of this sort when I tried to translate the cardinal notions of my voluntaristic logic into other languages. I found that the notion of 'relevance' was entirely foreign to any philosophic language. It was an intrusive law-term even in English, forced upon the lawyers by the practical need of finishing law-suits, but flatly contradicting the philosophic insistence on dragging in the totality of reality. Similarly 'meaning' proved to be a word which cannot be rendered by any single equivalent in French or German, and which never occurred in the index of any intellectualistic logic. The case of 'right' and 'wrong' will I believe turn out to be very similar and a case in point.

What then are we to make of a distinction which appears to occur only in a few Teutonic languages? Can we conceivably make such a distinction a criterion of morality anywhere but in an English-speaking country? We should assuredly be mobbed. Clearly the ultimate question of morals has to be expressed in other and more cautious terms. And anyhow we need an ampler and more impartial survey of the psychological facts before we indulge in moral dogmatism. Even when we have made our survey its results may not be easy to interpret. The more limited the denotation 'right' and 'wrong' are found to have the more difficult will it be to contend that they are ultimate, and the more vigorously will this pretension be disputed by those peoples whose languages have no words for them.

The word 'ultimate' itself, moreover, is afflicted with a distressing ambiguity. It should mean, I suppose, the last term in some series or undertaking; but are we to mean by it the last thing we can reach by 'analysis', or the last thing we can rise to by 'evolution'? Is the process which ends in the 'ultimate' one of digging down and drawing out the meanings of words, or one of soaring as far as we can towards our highest ideals? Clearly there will be no inconsiderable difference between these two acceptations of the 'ultimate'. If we adopt the first, we shall have to accuse those who fail to analyse out our distinction of intellectual shortcoming; and they will retort that no analytic ingenuity can extract what is not recognized in language, and hint that a distinction which is so rarely recognized cannot be so very important. If we adopt the second, we shall have to hold that most systems of morality have not risen to our lofty level. Or, alternatively, that they have made such good use of *other* means of controlling human conduct that they have not needed to appeal to the distinction between 'right' and 'wrong'.

For my own part, however, I can see no objection to recognizing the distinction wherever we can find it, and using it pragmatically for all it is worth. If it works well and helps to control human propensities to any appreciable extent, we shall regard it as valuable or even as invaluable. If it works ill and gives its conscientious sanction to atrocities and obstinately thwarts the progressive readjustments of former 'duties' to changing conditions of life, we shall regard it as a nuisance, and undertake the education and enlightenment of errant and backward consciences. If it does both, in different persons, we shall discriminate, and insist that the value of a 'conscience' depends on the moral value of its possessor.

But in each of these cases our judgement will be based on *present* values; in none of them need we make the *value* of this distinction depend on *ex post facto* speculation about its 'origin' or fantastic hypotheses about its 'validity'. Scientific method does *not* require us to propound any theory about the 'animal origin' of conscience. It is enough to say that it must have entered the world at some time, at some unspecified point which we may never be able to determine, as an 'accidental variation', and was preserved and developed because it proved to have survival-value. It is equally unsound in method to account for its present value by ascribing to it a 'divine' origin or by regarding it as an occasional visitor from a transcendent world of things-in-themselves. Both these *façons de parler* are superfluous translations of actually experienced values into the language of metaphysical or theological theory. If the workings of 'conscience' were always pernicious, it would be denied 'validity' and its 'origin' would be traced to diabolic intervention or to an irruption into the cosmos from an underworld of chaos.

Such would seem to me to be the natural way of treating, not only the distinction of 'right' and 'wrong'; but all the other moral distinctions in vogue. It is intended to be *natural*, without being either naturalistic or super-naturalistic. And I trust it is not inconsistent with a frank admission that the psychological nature and significance of our distinction, and indeed of our whole moral vocabulary, still stand in need of further exploration: for unfortunately the co-operation between psychologists and moralists, as between psychologists and logicians, has been so very imperfect that we do not yet really know the facts we are trying to discuss. I wish therefore that this Congress could be induced to appoint an International Committee on Nomenclature, such as the zoologists already have, and would authorize it to draw up lists of the chief philosophic terms in use, together with (*a*) their translations, (*b*) their *functional equivalents* in the various languages, and (*c*) the *lacunae* in the latter. I hardly dare suggest (*d*) that the Committee should be empowered also to make recommendations with a view to removing ambiguities, absurdities, and abuses.

I must conclude with a word of apology for a paper which has been so largely lexicographical. I should have liked to have given a simple, clear, and unequivocal reply to our question; but I felt that much spade-work had still to be done before we could hope, I do not say to solve it, but even to discuss it with intelligence and profit.

(6)

THE PLACE OF WILLIAM JAMES IN THE HISTORY OF EMPIRICISM

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WILLIAM JAMES conceived it to be his role in philosophy to save empiricism through greater fidelity to its own tradition and standards.

The teachings which commended the British school to James and constituted its praiseworthy empiricism were two: the experimentalist doctrine that the events of sense-perception offer the only proof of existence; and the allied experiential doctrine that the essence of what exists, and the meaning of anything whose existence is debatable, are composed of the content of sense-perception. These are germinal doctrines, conceived by Locke, but reaching their full growth only in Hume and Mill. Thus Locke, while he affirms the peculiar 'adequacy' of the simple ideas of sense directly produced in us by existing things, nevertheless recognizes 'an intuitive knowledge of our own',[1] and a 'demonstrative' knowledge of God's existence.[2] In Hume and Mill, on the other hand, the experimentalist test is so rigorously applied that even the existence of the external world has become highly questionable. As to the experiential doctrine of essence and meaning, James singled out for special approval Locke's transfer of the question of personal identity from the debatable ground of 'substance' to the evident ground of conscious selfhood. But the same Locke who thus reduced personal identity to terms of specific and plainly identifiable experiences was more indulgent towards the ideas of spiritual substance, bodily substance, power, and cause. He was candid enough to be troubled by them, but not radical enough either to reject them or to identify them with those data which were taken as evidence of them. Berkeley renewed the empiricist attack by reducing material substance to sense-perception. Hume and Mill completed the conquest by submitting spiritual substance, power, and cause to the same drastic treatment. James was not, as we shall see, satisfied with the account which these writers gave, but he credited them with having undertaken the task on empiricist principles. They looked for the phenomenal disclosure of these alleged entities, with the intention of reducing their meaning to that disclosure.

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[1] *Essay Concerning Human Understanding*, 1853, p. 268.

[2] Op. cit., Book IV, Chapter iii, paragraph 21.

Viewed under one aspect, then, the course of British thought from Locke to Mill was conceived by James as a progressive revelation of the principles of empiricism and an extension of their application. Viewed from other angles, however, it was a transition from bad to worse—a progressive obscuring of empiricist principles, and contraction of their application. Thus there is a change from the liberal metaphysical and religious scope of the philosophies of Locke and Berkeley to the positivism of Hume and Mill, and to the scientific naturalism with which this positivism came to be associated. James's complaint of latter-day empiricism on this score pervades the volume of essays entitled *The Will to Believe*, and is explicitly formulated in the preface to that volume. He there speaks of 'the half-way empiricism that is current under the name of positivism or agnosticism or scientific naturalism', meaning that it fails to apply to the scientific view of the world the fundamental empiricist maxim of regarding the 'most assured conclusions concerning matters of fact as hypotheses liable to modification in the course of future experience'.[1]

James's further complaint against the classic British empiricism was originally formulated in the essay *On Some Omissions of Introspective Psychology*, published in 1884, in which the author referred to the sensationalists and associationists who 'end with the philosophical melancholy of a Hume at the conclusion of his treatise, or with Mill's dismal confession of failure at the close of his chapter on the Psychological Theory of Mind'.[2]

He afterwards summarized this complaint as follows:

'Now, ordinary empiricism, in spite of the fact that conjunctive and disjunctive relations present themselves as being fully co-ordinate parts of experience, has always shown a tendency to do away with the connections of things, and to insist most on the disjunctions. Berkeley's nominalism, Hume's statement that whatever things we distinguish are as "loose and separate" as if they had "no manner of connection", James Mill's denial that similars have anything "really" in common, the resolution of the causal tie into habitual sequence, John Mill's account of both physical things and selves as composed of discontinuous possibilities, and the general pulverization of all Experience by association and the mind-dust theory, are examples of what I mean.'[3]

[1] *The Will to Believe*, 1898, Preface, pp. vii, viii.

[2] *Mind*, 9 (1884), pp. 8–9. Cf. also, pp. 3–4, 26.

[3] *Essays in Radical Empiricism*, pp. 42–3. In this later period, James also recognized and repudiated the tendency to solipsism, evident in Berkeley and Mill, and attributed it to the same failure to make note of experiential conjunctions. Cf. *ibid.*, pp. 76 ff.

In other words, empiricism, which ought of all philosophies to possess an alert sensibility, failed to find that which was under its very nose, and through this failure ended in shipwreck or suffered the even more mortifying fate of being rescued by its traditional rivals. Such being the failure of the major school of empiricism, James found only two men who seemed to him to have understood its causes and to have pointed the way to their removal. These two great reformers of empiricism and 'foremost contemporary philosophers' of his time, were Charles Renouvier and Shadworth Hodgson.[1]

In 1872, writing to the author for the first time, he indicated the hope that Renouvier's philosophy, 'par son coté phenoméniste', might attract English thinkers of the reigning empirical school, and divert this school from its current tendency to determinism and materialism. James's Renouvier was first of all 'the greatest living insister on the principle that unity in an account of things shall not overwhelm clearness';[2] the philosopher who identified the real with the apparent, and knowledge with evident presence; who substituted 'representations' for substances or other hidden entities; who construed representations as embracing in their inherent duality of aspect both the subjective and the objective, and as standing in perceivable relations to one another, 'multiple, composite, linked, interlaced'.[3] Even Renouvier's doctrine of freedom itself is primarily an empiricist doctrine. It turns upon the nature of volition, and here James adopted Renouvier's view (the view of an 'out and out phenomenist') that volition consists in 'the stable survival' and motor discharge of representations.[4] Freedom is further supported by Renouvier's finitism and pluralism, this metaphysics being a direct outgrowth of his empiricist or phenomenist theory of knowledge. But it is supported, above all, by an empiricist interpretation of belief. The empiricist, renouncing all theoretical certainty save that felt in the immediate presence of particular facts, will recognize the inevitable discrepancy between the narrow range of theoretical certainty and the broad assurance of belief; and will conclude that the only sort of justification which such an excess of assurance over evidence can possess is a moral justification.

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[1] 'The Sentiment of Rationality', 1879, *Collected Essays and Reviews*, p. 133. Cf. also pp. 26 ff.

[2] James, 'The Sentiment of Rationality', *Mind*, 4 (1879), p. 325. Cf. 'Bain and Renouvier', *Collected Essays*, p. 29.

[3] Renouvier, *Traité de Logique Général*, vol. i, p. 77.

[4] *Ibid.*, p. 31; and *Pluralistic Universe*, p. 391 (note).

Shadworth Hodgson, like Renouvier, looked to the will, or practical reason, to offset the metaphysical limitations of empiricism. But to James, Hodgson was essentially the philosopher who keeps insisting that realities are only what they are 'known as'.[1] Like Renouvier, he wages war on behalf of phenomena against all substances and substrata. 'The least and lowest meaning of the term Being', without which it would be meaningless, he says, 'is perceivability'.[2] While James cited him as an exponent of the general experiential principle, the influence of Hodgson is most evident in matters of detail,[3] illustrating the power of that principle to transcend the sensationalistic atomism of Hume.[4] Thus Hodgson proposes to consider the distinction between subjective and objective as a distinction appearing on a certain level of reflection, *within* the field of consciousness, and involving no reference beyond that field.[5] Similarly, the difference between concepts and percepts consists in the fact that every portion of the phenomenal field has both an 'actual character', and an 'expectant character'—'expectant as it waits for the completion of its relationship to other portions'.[6] Again, consciousness is originally through and through temporal, and the substitution of a static juxtaposition of parts is an effect of analysis.[7] The minimum of consciousness is a 'process-content', a change or transition, which looks forward and back, having 'as it were, one foot in the present, one elsewhere.'[8] That which is at first in prospect shifts smoothly and uninterruptedly into retrospect. Thus the stream of experience is both continuous and interpenetrating. This is James's Hodgson, the apostle of the new empiricism.[9] There was another and to James a recreant Hodgson, who denied freedom, who reduced mind to dependence on body, who made inferences from consciousness to realities beyond, and was even tainted with monism. From this 'rationalistic' Hodgson, as from the *a priori* and speculative Renouvier, James was separated by a gulf that widened with the years and converted his relation into one of personal affection and reminiscent gratitude.

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[1] *Pragmatism*, p. 50.

[2] *Metaphysics of Experience*, 1898, vol. i, pp. 262, 455. Cf. *The Method of Philosophy*, 1882, p. 19. In his *Philosophy and Experience*, 1885, Hodgson uses the term 'experientialism' to designate the radical appeal to experience or consciousness as distinguished from the positivistic or naturalistic empiricism. In fact, Hodgson uses the term 'empiricism' habitually for what is defective rather than for what is essentially sound in the philosophical school to which he attaches himself. Thus what is to James a word to conjure with is to Hodgson a term of disparagement.

[3] It was in 1910, reminiscently, and in writing to Hodgson himself, that James coupled that philosopher with Peirce as one of the two sources of his pragmatism; cf. *Letters*, ii, p. 328. In a letter to Renouvier, 8 May 1882, James wrote, 'I find that all the good he does me is from details'.

[4] Cf. Hodgson's *Time and Space*, p. 33. James's copy of this book is inscribed with the date 'December, 1875'. Cf. also *Philosophy of Reflection*, 1878, vol. i, p. 11.

[5] Cf. *Metaphysics of Experience*, vol. i, Book I, Chapters v–vii.

[6] *Philosophy of Reflection*, 1878, vol. i, p. 294.

[7] *Ibid.*, p. 252.

[8] *Metaphysics of Experience*, vol. i, pp. 35, 42; cf. *Philosophy of Reflection*, vol. i, pp. 252–3.

[9] Cf. e.g. James's reference to Hodgson in *Essays in Radical Empiricism*, p. 48.

Let me now, in conclusion, briefly summarize James's own philosophy viewed as a neo-empiricism, descending legitimately from the British School, but avoiding the unhappy fate of Hume and Mill and pointing the way towards a constructive and adequate philosophy. I shall continue to divide empiricism, for this purpose, into two major and complementary ideas: the experimental theory of existential knowledge, and the experiential notion of essence. The experimental theory of knowledge is the theory that knowing initiates ideas of existence which it submits to existence, and which existence itself accepts or rejects in the events of sensation. The experiential notion of essence is the theory that existence shines in its own light, or reveals its native quality in certain authentic modes of immediate apprehension such as perception.

James's experimentalism, reflecting an early Darwinian influence, excludes from the beginning the view that mind is a passive receptivity to the external order.[1] On the contrary, he says, mind is active and inventive. But every cognitive project is on trial and bound to submit itself to fresh findings, no matter what other credentials it may possess.[2] It places itself at the mercy of specific fact which it cannot control. In forming and trying hypotheses the mind is not only active, but interested. It tries what it hopes is true. If it refused to trust its interests, it would believe nothing; for belief at the moment of its occurrence invariably exceeds the given facts. Since the subjective factor is unavoidable it should be consciously recognized, in order that the appropriate moral standards may be applied to it. There are important fields, such as religion, in which the sensational test is remote or impossible; and in these fields the moral test becomes peculiarly important. That even here, however, fact-finding takes precedence of faith is clear from the importance which James attaches to the empirical evidence for God and freedom. Thus James's fideism grows out of his empiricism. It is a corollary of the generalization of the experimental method, and compensates for the limitations of empirically verifiable knowledge, being in this role substituted for the alleged *a priori* certainties of the rationalistic schools.

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[1] 'Spencer's Definition of Mind as Correspondence', 1878, *Collected Essays and Reviews*, pp. 43 sq.

[2] *Will to Believe*, Preface.

The other half of James's empiricism is his experiential metaphysics or notion of essence. Experimentalism takes account of knowledge by concepts, that is to say, the beliefs of everyday life, together with the systematic conclusions of science and philosophy. But such knowledge reflects, culminates in, and verifies itself by, knowledge of another sort, a knowledge in which existence reveals its nature directly. Experimentalism deals with the limits of this more authentic knowledge, and the methods of transcending them. Experientialism, on the other hand, deals with the richness of this sort of knowledge, above all with its inclusion of relations, for the alleged lack of which it has been condemned by opposing schools. James elaborates this general thesis with scrupulous attention to detail: in his nativistic theory of tri-dimensional space, his doctrine of the specious present as embracing temporal sequence, his identification of causal activity with a unique pattern or train of sensible data, and in his interpretation of the self's unity and reflexive consciousness in terms of a 'judging thought' that takes its place in the common stream. The traditional chasms which other schools left unbridged, are *filled* by James with a positive, experiential content. Mind and body are differences of external relation and context attaching to identical terms, which are given, but are in themselves neither mental nor bodily. Thought's reference to its transcendent object is translated into routes from the nearer to the remoter portions of the one experiential field, or into a feeling of the direction and destination of such routes. Thus, by the inclusion of experiences of tendency, meaning, and relatedness, by a recognition of the more elusive fringes, margins, and transitions that escape a coarser sensibility, or a naive practicality, or an unconsciously artificial analysis—by such inclusion, the field of immediately apprehended particularity becomes a self-contained continuum which is qualified for the role of metaphysical reality.

Reality construed empirically as an experience-continuum has unity both of kind and of connexion. But it is none the less a plurality, and not only because there is a moral interest in thinking it so, or because a world that can be known piecemeal must be divisible in its nature—it is a plurality empirically. The relations by which the world perceivably holds together are *de facto* or adventitious, rather than necessary, relations. It is characteristic of the totality of existence, as empiricism finds it, that its parts compose and yield the whole, rather than that a prior whole manifests itself in predetermined parts. Such a world is subject to change initiated locally, as, for example, in the human will. It is not only a fluid, but a plastic world in which there is a third alternative to resignation and despair. Not being essentially indivisible it may be praised with discrimination where it is praiseworthy, and worshipped where it is divine.

This continuous field of given existence, as James depicts it, is far removed from the sensationalistic atomism of the classic empiricists. But it was intended none the less as a correction and amplification, not as an abandonment, of the older tradition. The earlier empiricists failed because they were not empirical enough; and through their failure empiricism became an acknowledgement of defeat. Towards the end of his career James made repeated allusions to the metaphysics which he was about to write. He was not spared to accomplish his purpose with the technical rigour which he had intended. But in his final metaphysics, incomplete as he felt and acknowledged it to be, James saw the dawning realization of that hope which was the deepest and most persistent motive in his philosophizing. 'Let empiricism', he said, 'once become associated with religion, as hitherto, through some strange misunderstanding, it has been associated with irreligion, and I believe that a new era of religion as well as philosophy will be ready to begin.'[1]

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[1] *Pluralistic Universe*, p. 314.

THE DIALECTICAL UNITY OF CONSCIOUSNESS AND THE METAPHYSICS OF RELIGION

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SOME sort of unity of consciousness is presupposed in all experience. 'Everyman' transacts business on the basis of memories of previous transactions and hopes of future ones. Unless he and all concerned take for granted that the same person who sends the order and receives the goods also pays the bill or authorizes it to be paid, the structure of business becomes chaos. Business, it is said, rests on credit; and credit rests on the integrity of consciousness in the literal as well as the moral sense of the term. Unity of consciousness in each party is essential to every binding contract. Each party commits himself to certain future conduct. Unless a future conscious control can direct action in accordance with the obligations assumed in the contract, all contracts are null and void. Education, love, morality, and logical thinking all rest on the fact that the changing, growing, fickle, contradictory consciousness of each one of us is nevertheless a unity, capable of knowing that its complex parts and conflicting desires, however incompatible they may be logically or ethically or aesthetically, all belong to one consciousness. Whatever my mood of hope or despair, of insight or ignorance, it is mine and belongs to the unity of my self.

Out of this situation grow problems for metaphysics. Is this unity of consciousness ultimate and original or is it dependent and derived? The view that it is dependent and derived is predominant to-day. It is held by neo-scholastics (who make the unity of consciousness dependent on the soul) as well as by analytic realists, associationists, physiological psychologists, behaviourists, and others, all of whom regard consciousness as a complex integration of simpler or of absolutely simple unconscious elements. Yet the recent tendency has been to regard the problem as unimportant or out of date rather than to face the difficulties involved in denying the ultimate unity of consciousness. A notable exception to this tendency is the judicious article of Mr. H. J. Paton in a recent number of *Mind* (No. 151, July 1929, pp. 312–29)

I

By the unity of consciousness in this paper, we shall not mean any unitary substance, substratum, ego, or scholastic soul; nor a central core of consciousness which remains unchanged while all about it changes; nor uninterrupted continuity; nor complete memory. We shall mean the universal, primitive, given fact that each immediate field of attention occurs as a whole which is not a sum or collection of originally separate or separable parts, and that this whole is uniquely connected with past and future ones, which together constitute one self. The self may thus be called a *Gestalt* of *Gestalten*. Consciousness is a moving whole—a stream, if you will—and not a completed entity nor a sum of such entities. It is complex, not simple; more accurately, it is empirically complex, but metaphysically simple, on account of its unity. Although it has all the properties which psychology discovers the field of attention to have and hence contains many contradictions, it is a whole in at least two senses: first, it is an immediate whole as given in any 'specious present' (the datum self); and secondly, it is an interpreted or inferred whole as linked by memory, anticipation, and reason, with past and future immediate wholes (the whole self). Unity in these two senses is a mark of all consciousness, normal or abnormal.

Furthermore, as far as we know, consciousness exists only in individual centres, monads or selves. All given present consciousness is connected by memory-linkages with past conscious events which once were present and by anticipation-linkages with future conscious events which may sometime occur. Through a complicated, but finite, series of memories, my present is connected with all of my past. But the unity of consciousness does not consist of actual present psychological memory, any more than it consists of the repetition of the formula, 'I am I', or of a soul substance. It consists rather of the experienced wholeness of the datum self, plus a memory of past situations in which there were memories which now have vanished, plus the overlapping of one datum self with another. The self, while a temporal process and whole, is also time-transcending. It includes in one conscious grasp (what Royce called a time-span) events that happen at successive instants; it recalls its past and anticipates its future. The unity of consciousness, then, is the fact of present experience and its memories, interpreted by the time-transcending reference of thought.

This implies a monadic theory of consciousness. To put it paradoxically: I can remember what another consciousness (namely, my own past) has been; but I can never remember what another consciousness (namely, any other person's past) has been. I can remember what I have observed of the behaviour of others, but their experience is theirs and not mine. Not only their pleasures and pains, but also their sensations, are theirs and theirs alone. There is no reason for distinguishing between so-called subjective and so-called objective experience in this regard. John's seeing of the cow is his experience; my seeing of the same cow is mine. What the real cow may be in herself is neither my experience nor John's, although John and I may truly know her by inference from our experiences. John and I are distinct conscious unities, experiencing only ourselves, but capable of knowing each other and the cow. Each of us is a monad, but a monad with windows for knowledge and for interaction, if not for interchange of parts.

It is evident that the unity of each monad-self is not a unity of content, but a unity of form, namely, the form of time-transcending wholeness both given and implied. Such a unity is in the Hegelian sense concrete and not abstract; it is not the unity of a 'pure' ego, but the unity of a living whole, or a *durée réelle*. The direction of experimental interest towards the object and towards special fields (see the table of contents of *Psychological Abstracts*) has unfortunately distracted attention from the universal fact of the subjective unity of every conscious monad.

II

There have, however, always been philosophers who have asserted the *a priori* necessity of the unity of consciousness. The actual unity of my self of to-day with my self of yesterday cannot be a present datum of either yesterday or to-day, although both yesterday and to-day imply that unity as an *a priori* necessity. It is implied by logic. Unless the subject and predicate of a proposition or the premises of a syllogism are present to one consciousness, no judgement, much less inference, can occur. Hence the unity of consciousness is necessary to logical thinking. Likewise, unless one consciousness can build up its judgements into a systematic whole, knowledge is impossible. If all the parts of truth were known by separate selves, the wholeness of truth as an organic unity would be lacking until the various fragments were related in a unitary consciousness. Thus the unity of consciousness is epistemologically necessary. Moreover, unless the mind that wills an act is one with the consciousness that carried out the deliberation preliminary to it, formulated both its end and its maxim, and will experience its consequences, moral life is impossible. Thus the unity of consciousness is ethically necessary.

Likewise, it is necessary for religion. Whatever else religion may be, it surely is concerned with the value of human personality. Value and personality are its two fundamental concepts. Both of these concepts imply the unity of consciousness. Without a consciously unitary purpose or end, no value is apprehended; without a conscious unity of meaning, no personality exists. Hence the unity of consciousness is *a priori* necessary religiously as well as logically, epistemologically, and ethically.

III

Yet students of the empirical facts have nevertheless often inclined to regard the unity of consciousness as an empirical accident rather than as an *a priori* necessity.

The unity may be denied empirically on causal grounds. It will then be argued that consciousness is unintelligible apart from its physiological basis and its environment. The physiological basis can be analysed into nerve cells and they into genes; finally, both the genes and the whole environment are analysed into electrons and protons or more ultimate elements, whether physical or neutral. Thus the apparent unity dissolves into a real plurality. While this argument rests on the truth that consciousness is unintelligible apart from its environment, it ignores the truth that consciousness is also unintelligible unless its own immediately experienced structure is taken fully into account.

But when the empiricist examines this conscious structure he may still feel that he can show its supposed unity to be derivative. The strictly analytical psychology of a Hume or a Titchener explains the apparent unity as a product of association. The behaviourism of a Watson or a Weiss holds that the so-called facts of consciousness are really modes of behaviour of the physiological organism, which plainly is no ultimate or indivisible unity. Moreover, abnormal psychology lends colour to the view that normal consciousness is built up out of originally subconscious processes and is capable of being disintegrated.

It is true that some empiricists arrive at results more in harmony with the unity of consciousness. I refer to the self-psychologists and the psychologists of purpose and *Gestalt*. For them, the wholeness of consciousness is as certainly a given empirical fact as it is a logically necessary principle for the rationalist. But the conflict between *a priori* and empirical interests remains.

IV

It is superficial to regard the *a priori* and the empirical as mere catchwords of two temperamentally opposed psychological types or schools of opinion. They are, rather, essential and inseparable aspects of consciousness, neither of which can be fully understood in isolation. Only in their concrete unity is their full truth evident. Hence, the unity of consciousness cannot be adequately asserted on the merely *a priori* basis; much less can it be adequately denied on the merely empirical basis. Its nature can be understood only when the two aspects are seen in their dialectical unity and their antinomy is thus solved.

If thought is to find a synthesis, it must recognize that the necessary principles of transcendentalism and the brute facts of empiricism are aspects of the life of one unitary consciousness, which we call a self, person, or mind. Rational interpretation and factual observation and analysis are experiences of the same self. The separation of the principles of reason from the manifold of sense is therefore a feat of artificial abstraction which generates artificial contradictions. The self includes both in its unity. Whether I recognize the validity of the synthetic unity of apperception or the presence of an appetizing dinner, I am the same I. The apprehension of the most transcendental principle is a conscious act of my psychological being; and the most immediate and concrete sensation belongs inseparably to the warp and woof of my unitary consciousness. If the transcendental principles are not aspects of one and the same consciousness as is the empirical content which they are supposed to organize, the principles are helpless to do any real work. Failure to recognize this organic unity of consciousness is the chief ground for the persistence of the separate schools of rationalism and empiricism.

V

This paper has two main theses. The first is that the unity of consciousness is a dialectical necessity; this has already been adumbrated. The second is that the unity of consciousness is fraught with implications for the metaphysics of religion. The remainder of the paper will be devoted to this second thesis.

The traditional concepts of religion are God, freedom, and immortality. Let us examine the implications of the unity of consciousness for those concepts.

If consciousness be a concrete unity of transcendental and empirical factors, then it is at least possible that there may be a Supreme Consciousness, that is, a personal God. On the other hand, if either the purely empirical or the purely transcendental account of the unity of consciousness be valid, it is very improbable that there is a personal God. If all unity in human consciousness is merely an empirical product, there is no solid basis for the belief that the universe is or expresses the will of a spiritual unity. We then have no empirical evidence for what a genuine spiritual unity would be. Again, if the unity of human consciousness be a 'pure' transcendental principle, it is far from clear how so abstract a principle could do the work of a God. The gods of Aristotle and of Kant are too abstract for religion as well as for concrete dialectical thought. But if the unity of human consciousness be an organic whole of empirical-rational experience, such a whole serves as a possible model for a personal God, for it combines rational unity with empirical variety as must any metaphysical account of the world which we experience.

Moreover, if unitary consciousness occurs only in individual centres or monads, a theistic personal pluralism is more probable than a pantheistic monism. The unity of each human self is monadic. Whatever may be the arguments for a personal pantheism, based on the relatedness of the parts of the universe in one whole, the fact of the unity of consciousness must be taken account of. As naturalism omits man from its data, so pantheism omits individuals. If the one spirit which religion apprehends as pervading the universe is a person, analogous in any way to the persons that we know, it cannot include other persons within itself. The pantheistic view involves the sacrifice of the kind of individual unity which is essential to a conscious person. Monads are related by knowledge, purpose, and action, not by absorption in a Super-Monad.

The bearing of the unity of consciousness on freedom is less specific. There is nothing in the unity of consciousness as such either to prove or to disprove freedom. But an organic unitary view of the self is distinctly more favourable to freedom than is an atomistic view, for atomism is naturally mechanistic, while freedom posits a unitary self. The unity of consciousness, therefore, renders freedom at least possible. Without a unitary consciousness, a free act would have no logical or moral significance. It would be an isolated event, not the responsible choice of a person. The free choice of a unitary consciousness, however, would stand in a significant context.

We may complete the triad of religious concepts by considering immortality. The belief in immortality has frequently been connected with the metaphysic of a substantial soul. This metaphysic has described the soul as a unitary, permanent, and simple substance, which supports consciousness, yet is not identified with it. But, in fact, religion has no interest in the immortality of such an entity, and most modern psychology and philosophy since Locke find it unintelligible, although many weak arguments have been urged against it. The immortality of a soul apart from consciousness would be worthless. All value, and hence all significant immortality, is a conscious experience. On the other hand, if the unity of consciousness be taken as the model of ultimate metaphysical reality (so that souls and all other substances quizzically retained by Locke are denied in the interests of conscious personal identity), the universe may then be a society of conscious selves. In the conscious experience of each self the values of the universe may be progressively realized through eternity.

Moreover, our view of the unity of consciousness has implications for our interpretation of the kind of immortality that is possible. Aristotle failed to achieve synthetic unity and therefore ascribed an impersonal immortality to the *νοῦς ποιητικός*, which he was unable to amalgamate with the rest of consciousness. Schopenhauer found in the will, apart from intellect, the eternal nature of reality and regarded all individuals as phenomena of one and the same blind Will. Hence Aristotle and Schopenhauer denied personal immortality.

But such denial is less legitimate when one has once perceived the nature of the unity of consciousness. That unity does not allow of a separation of the self into parts, such as intellect, will, and sensibility; neither does it require that future experiences shall continue to be of precisely the same empirical type as those of the past. Thus the unity of consciousness suggests the possibility of immortal personal life in meaningful relations to our present empirical selves irrespective of whether future experience is to be sensuous or not. Further, the fact that the actual unity of consciousness is in constant need of further unification by rational ideals suggests as a goal of immortality the achievement of ever higher types of conscious unity.

In conclusion, a final point must be mentioned. It may be objected that the view which we have presented infers too much from too little. The unity of consciousness is a slender foundation to carry the lofty superstructure of a religious world order. It alone is, of course, not sufficient evidence for the truth of religion; but if the unity of consciousness be not valid, then religion is an illusion. However, all other values are similarly situated. All human knowledge—whether religious, scientific, or philosophical—is a hypothetical interpretation of the given facts of consciousness. Among hypotheses, that of the unity of consciousness is central. As Professor W. M. Urban would say, its acknowledgement is a condition of intelligibility and of communicability. The scepticism which lies near is transcended only through a working out of the implications of unitary selfhood.

We have shown that the unity of consciousness is regarded by rationalists as an *a priori* necessity and by empiricists as an accident of association, but that a synthetic dialectic shows consciousness to be an organic unity containing both transcendental and empirical factors. This view has religious implications: if it be true, then personal theism is more probable than pantheism, freedom is at least possible, and immortality more probable than on the basis of either rationalism or empiricism, while acceptance of the unity of consciousness as a fundamental hypothesis is necessary to the refutation of scepticism.

DER STREIT UM DAS DASEINSRECHT DER METAPHYSIK UND DIE GESCHICHTE IHRES BEGRIFFS

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DER Streit um das wissenschaftliche Daseinsrecht der Metaphysik ist vielfach deshalb so ergebnislos verlaufen, weil nicht bemerkt wurde, wie vielfältig der Begriff 'Metaphysik' selbst dabei schillert. In Wahrheit hat dieser Begriff eine Reihe von Wandlungen durchgemacht und damit eine Vielheit von Bedeutungsmöglichkeiten in sich aufgenommen, die im Gegenwartskampf meist ungeschieden ineinanderspielen. Recht und Unrecht der aus dem 19. Jahrhundert in die Gegenwart hineinwirkenden metaphysikfeindlichen Haltungen lässt sich erst klar herausstellen, wenn der so kompliziert belastete Metaphysikbegriff in seine geschichtlichen Grundbedeutungen aufgelöst wird.

1. Die πρώτη φιλοσοφία des Aristoteles ist nach zwei Richtungen von ihrem Schöpfer selbst definitorisch festgelegt worden: als Fundamentalwissenschaft vom Seienden als solchen und dann als Lehre von dem Einen höchsten Sein, als θεολογική. Schon darin liegt eine Zweiseitigkeit des Begriffs; die jüngste Aristotelesforschung hat versucht, die beiden Wissensrichtungen sogar in ihrem historischen Ursprunge bei Aristoteles voneinander abzutrennen. Ihr Sachzusammenhang wird vermittelt durch eine dritte, definitorisch nicht besonders ausgezeichnete Zielsetzung der 'ersten Philosophie': die auf das Ganze des wirklichen Seins, auf das Weltsystem in seiner Stufenschichtung, vor allen Einzeluntersuchungen der φυσική. — Die spätere Antike behält diese Bedeutungen bei; der Akzent aber verschiebt sich einseitig zugunsten der θεολογική; entsprechend nimmt der jetzt sich einfindende Ausdruck des 'Metaphysischen', entgegen seiner schlichten Ursprungsbedeutung, die Klangfarbe grundsätzlicher Einstellung auf ein Jenseits zu Natur und Wirklichkeit an. Von da an hat, bis heute, die für die 'erste Philosophie' eintretende *Wort*bildung immer wieder ihren Einfluss auf die Fassung des Begriffs geübt.

2. Patristik und Scholastik, mit ihrer grundsätzlichen Verkoppelung von Philosophie und Religion stellen die Lehre vom transzendenten Gottessein vollkommen in den Mittelpunkt der metaphysischen Bemühungen. Erste Philosophie ist hier vor allem Theologie, Seinslehre von der Existenz und den Eigen-

schaften Gottes, und dann auch von der göttlichen Weltsetzung und Weltordnung. Metaphysik ('Transphysica') wird festgelegt als scientia divina: sie handelt de creatore et creaturis. Die Fragen nach Prinzipien und Arten des Seins als solchen und der Wirklichkeit folgen erst nach den Hauptanliegen: Quid sit Deus und De productione entium in communi. Ein zweites Moment fügt sich dem an. Das Wissensinteresse der Religion verbindet mit den theologischen Fragen die Fragen zur Unsterblichkeit. Deum et animam scire cupio. Die Seele, nicht als Inhalt erfahrbarer Wirklichkeit, sondern nach ihrem jenseitigen Wesen und Schicksal, die Seele als grundsätzlich vom Materiellen und Natürlichen unabhängiges, raum- und zeitüberlegenes Sein wird zweites Hauptanliegen der Metaphysik. Gott und Unsterblichkeit, das sind die metaphysischen 'Ideen' dieser Zeit; der religiöse Glaube gibt der ersten Philosophie die Themen. — Eine neue Verstärkung und Ausweitung des Transzendenz- und Übersinnlichkeitsmoments im Begriffe der Metaphysik ist damit gegeben; Metaphysik, diese Wissenschaft circa res divinas, zielt neben dem Ens primum quod est a materia separatum auch auf endliches Sein von überzeitlich-immaterieller, aller 'Physik' der Wirklichkeit entlegener Substantialität. — Aber den Seelen fügt sich nun noch, von der religiösen Überlieferung und Spekulation aus, eine ganze weitere Welt an: die reinen Intelligenzen! Vom Pseudo-Dionys an gehört ein Stufenreich grundsätzlich überwirklicher, von allem Materiellen und Natürlichen abgelöster Geistsubstanzen zum Seins- und Weltbegriff des Mittelalters. Das erst ergibt die stärkste Zuspitzung der Übersinnlichkeitstendenz. 'Metaphysik' ist jetzt die Lehre von den substantiis immaterialibus. Wie es in späteren lexikalischen Definitionen des 17. Jahrhunderts noch heisst: scientia post vel supra physicam, ea considerat, quae sunt supra corpora naturalia; sie handelt de ente, de Deo, de angelis, et anima separata agente; oder auch: de istis speciebus substantiarum, quae ab omni materia sunt absolutae. — Ein der Antike gegenüber neuer und gänzlich anderer Gegensatz zur 'Physik' ist hier massgebend geworden: das Reich des Übernatürlichen, der mundus intelligibilis als Inbegriff reiner Intelligenzen, stellt sich dem Inbegriff materieller oder materiell gebundener Substanzen des mundus sensibilis gegenüber. Es ist notwendig, sich klar zu machen, wie tief diese Begriffswendung in die Neuzeit hinein nachwirkt, nicht nur in den Metaphysikbegriffen des 17. und 18. Jahrhunderts (insbesondere auch Kants), sondern bis auf die Gegenwart.

3. Die Neuzeit bringt eine neue Wissenschaftslage. Die Grundeinstellung des Interesses auf das Transzendente tritt zurück. Eine neue Zuwendung zur erfahrbaren Wirklichkeit stellt die Philosophie vor andere Aufgaben. Mit den gewandelten Fassungen des Weltbegriffs und der Wirklichkeitsarten wächst ein neues Interesse für die Wesensstrukturen des Seienden herauf; die metaphysica generalis, Fundamentalwissenschaft vom Seienden und seinen Grundkategorien, in Spätantike und Mittelalter meist hintangestellt, tritt wieder in den Vordergrund und erhält nun auch den Namen einer eigenen Disziplin: 'Ontologie'. Im Schulsystem des 18. Jahrhunderts geht sie der Theologie vorauf. Ferner: der Aufbau der erfahrbaren Wirklichkeit, des mundus sensibilis, wird zentraler Gegenstand der philosophischen Forschung. Die Meditationes de prima philosophia des Descartes, obgleich zunächst scheinbar nur auf die alten Interessen von Gott und Seele eingestellt, entwickeln die Lehre von der Körperwelt, der räumlichen Natur, in der wir leben. Kosmologie wird von nun an ein Hauptglied der Metaphysik; mit Ontologie, Theologie und Seelenlehre zusammen bildet sie das Schulsystem des 18. Jahrhunderts. — Zur 'Physik' aber tritt Metaphysik jetzt in ein anderes Verhältnis. Die Physik der Neuzeit hat sich als autonome Einzelwissenschaft von der Philosophie abgelöst. Zufolge ihrer Methodik verzichtet sie auf Erforschung letzter Substanzen, Ursachen und Kräfte; beschränkt sich auf den Aufweis mathematisch fassbarer Gesetzesrelationen. Die tieferen Seinsfragen des Physischen werden der Philosophie überlassen. Damit ist eine Grundaufgabe der Metaphysik in ein neues positives Verhältnis zur Physik gestellt; und in diesem Umkreis tritt das Transzendenzmotiv notwendig in den Hintergrund. Kosmologie, als 'Metaphysik der Natur' erarbeitet die 'metaphysischen Anfangsgründe der Naturwissenschaft'. Metaphysik und Einzelwissenschaft vom Erfahrbar-Wirklichen sind aufeinander hingeordnet; der Aufbau des modernen Weltbildes im 17. und 18. Jahrhundert zeigt ihr Ineinanderwirken.

4. Mit der Herausbildung aber dieser 'Metaphysik' der Neuzeit, die alle Interessen der Fundamentalwissenschaft, die religiös bestimmten 'übersinnlichen', wie die der ganzen Wirklichkeitserfahrung gleichmässig umschliessen will, tritt eine neue Komplikation für den Begriff der Metaphysik auf. Eine neue Festlegung auf eine ganz bestimmte, historisch bedingte Einstellung bildet sich heraus — auch sie bis in die Gegenwart nachwirkend. Die Fixierung ist diesmal nicht so sehr eine inhaltliche, als eine

methodische! Die neuen Systeme stehen im Bann des 'Rationalismus'; und die Schulkodifizierung des 18. Jahrhunderts nimmt es als Grundvoraussetzung auf: das philosophische Wissen von den *allgemeinen* Prinzipien des Seins, der Welt, der Gottesexistenz und Seelenunsterblichkeit muss streng rationales, demonstrativ-deduktives Wissen sein. Ex *notione* mundi muss alles Prinzipielle des Weltseins sich ergeben; das Spezielle kann dann empirische Physik ex experientia entnehmen. Ex *conceptu* animae muss ihr Substanzwesen, ihre Unsterblichkeit sich einsehen lassen. Cosmologia *transcendentalis*, '*rationale* Psychologie' stehen als metaphysische Disziplinen empirischer Physik und Psychologie gegenüber. Auch die Ontologie muss alle Bestimmungen aus dem *Begriffe* des Seins deduzieren können. So wird Metaphysik zur 'Wissenschaft der notwendigen Vernunftwahrheiten' vom Seienden, allem empirischen Wissen von 'Zufälligem' entgegengesetzt (Crusius). In Formulierungen Kants: Metaphysik ist 'isolierte spekulative Vernunfterkenntnis, die sich gänzlich über Erfahrungsbelehrungen erhebt, durch blosse Begriffe'. Das Meta-Physische ist das Met-Empirische. — Auch diese Festlegung der Metaphysik auf apriorisch-apodiktisches Vernunfterkennen wirkt ins 19. Jahrhundert hinein; fast die ganze metaphysische Spekulation des 'Deutschen Idealismus' z.B. sieht sich in dieser Gegenstellung zur Erfahrungswissenschaft. Was Kant, den grossen Kritiker der Metaphysik, anlangt, so ist nicht nur sein Begriff vom 'Dogmatismus' der Metaphysik, den er vernichten wollte, von daher genommen, sondern auch seine 'künftige Metaphysik', der die Kritik den Boden ebenen sollte, ist als streng apriorische Wissenschaft gedacht.

5. Das Kantische System hat dann ein weiteres Motiv dem Metaphysikbegriffe eingefügt. Kant stellt 'Erscheinungen' den Dingen an sich selbst entgegen, und zwar in grundsätzlicher Trennung. Die Dinge an sich sind das schlechthin Unerfahrbare, das 'Übersinnliche', der Raumzeitform nicht Unterliegende. Jene geistige, von aller Materie abgelöste Welt Gottes, der Intelligenzen, der unsterblichen Seelen, — das sind Dinge an sich. Aber auch das substantielle Wesen der uns gegebenen Dinge, der Natur, des Menschen ist in seinem letzten Ansichsein unserm Erfahrungswissen grundsätzlich unzugänglich. Wie das nun auch bei Kant begründet sein mag, — breite Strömungen der späteren Philosophie sind dem gefolgt; und 'Metaphysik' ist dann, bei Freund und Feind, verstanden worden als das philosophische Bemühen, über Erscheinungen, Gegebenheiten, Relationen

hinauszukommen zum letzten Ansichsein und Insichsein der Dinge. In diesem Zusammenhang steht z.B. noch, am Ende des 19. Jahrhunderts, Bergsons Begriff und Forderung der Metaphysik.

Eine der gegenwärtigen Wissenssituation entsprechende Entscheidung der Fragen nach Daseinsrecht und Forschungssinn der Metaphysik wird zu den obigen, an der Begriffsgeschichte herausentwickelten Bedeutungsformen sehr verschiedene Stellung einnehmen müssen. Ich fasse die dahingehenden Überlegungen in einigen Hauptthesen zusammen:

a. Die noch bei Kant und dem Deutschen Idealismus massgebende Überzeugung, dass die höchste und erste Wissenschaft auch durch rein apriorisch-apodiktische Gewissheit ausgezeichnet sein müsse, ist für uns heute hinfällig geworden. Metaphysik ist, nicht anders als die Natur- und Geschichtswissenschaften, Realwissenschaft. Alle Erschliessung des Realen aber vollzieht sich in immer neuem Ineinanderwirken von Erfahrungserweiterung und vertiefender Erforschung der Prinzipien. Metaphysik kann nicht erfahrungsfreie Vernunftwissenschaft sein. Wir sind nicht im Besitze einer statisch fixierten, abgeschlossenen und sich in ihren eigenen Gründen schlechthin durchschauenden Vernunft, in der die Seinsfundamente und der strukturelle Rahmen der Wirklichkeitsbereiche als Begriffssystem repräsentiert wären. Metaphysik muss, auf der Basis der Erfahrungen, grundsätzlich immer mit dem Irrationalen in der Wirklichkeit, und gerade in den tieferen Wesensformen und -zusammenhängen, rechnen; ja ihre besondere Aufgabe gegenüber den Wissenschaften wie gegenüber den philosophischen Einzeldisziplinen besteht eben im entschiedenen Eingehen auf die dort wegen mangelnder Durchschaubarkeit vernachlässigten Seinsprobleme. Ihr letztes Pathos ist nicht Sicherheit des Ergebnisses und Besitzgewissheit des Systems, sondern der Mut des Fragens und die Energie des forschenden Vorstossens selbst angesichts des offensichtlich 'Unlösbaren'.

b. Wissenschaftliche Metaphysik hat es nicht zu tun mit 'übersinnlichen Welten', die jenseits möglicher Erfahrung liegen. Jenseitigkeit der Gegenstände gehört keineswegs zu ihrem eigentlichen Wesen. Der heute vielerorts beliebten Zusammenordnung von 'Metaphysik' und Theosophie, okkulten Wissenschaften und dergl. liegt keine Sachnotwendigkeit zugrunde. Der Wirklichkeitssinn des 19. und 20. Jahrhunderts wehrt sich mit Recht gegen die im geschichtlichen Werdegang der Metaphysik so vielfach vorherrschende Tendenz zur Verlagerung des Seins- und Sinninteresses ins Transzendente und Übernatürliche. Metaphysik ist Lehre vom Wirklichen. Das gilt für die Metaphysik des Geistes nicht weniger als für Naturphilosophie und Kosmologie. Ihr Gegenstand ist nicht eine Überwirklichkeit reiner Geistwesen oder das etwaige Jenseitsschicksal der Seele, sondern die erfahrbare zeitliche Wirklichkeit des personalen und geschichtlichen Geistes—auf der Basis und im Zusammenhang des natürlichen und materiellen Seins.

c. Metaphysik als 'Theologie', allgemeiner: als Philosophie des Absoluten wird immer eine mögliche Aufgabe des Denkens bilden. Auch der Zusammenhang der philosophischen Idee eines einheitlichen Weltgrundes und Sinnursprunges mit den Aussagen des religiösen Bewusstseins hat bleibendes Sachgewicht für die metaphysische Diskussion dieser letzten Fragen—deren philosophische Aktualität immer abhängig sein wird von der lebendigen Wirklichkeit und Macht religiösen Lebens. Aber dieser Problembereich stellt ein äusserstes End- und Restgebiet der Metaphysik dar; nicht, wie bei Hegel noch, Ausgang und Basis. Nichts berechtigt uns, an eine Wesensidentität unserer menschlichen Vernunft mit einer göttlichen Vernunft zu glauben, und uns mit unserem Denken, Erfahren, Erschauen 'an der Wurzel des Seins' zu fühlen. Ob und wieweit wir etwas wissen können von der Realität und den Weltauswirkungen eines absoluten und höchsten Seienden, ist fraglich genug. Das Schicksal der Metaphysik hängt nicht an diesem einen Punkte.

d. Metaphysik als Wirklichkeitslehre steht in engstem Zusammenhang mit den einzelnen Wirklichkeitswissenschaften. Die mit der beginnenden Neuzeit gegebene Wissenschaftssituation hat sich in ihrer Entwicklung zur Gegenwart nur erweitert und kompliziert. Nicht Philosophie und Wissenschaft stehen sich jetzt gegenüber, sondern Philosophie und eine Vielheit von Wissenschaften, die sich ständig weiter differenziert. Angesichts dieser Lage besteht die Aufgabe der Metaphysik nicht nur in einem Zusammenbau oder Überbau von Resultaten (wie ihn auch der Positivismus fordern musste), sondern in ständig erneuter kritischer Abwägung der in den Wissenschaften arbeitenden Prinzipien und Perspektiven auf ihr *Seinsgewicht* hin, — auf ihre ontische Bedeutung für die Gesamtwirklichkeit, relativ gegeneinander und in Beziehung auf die vorwissenschaftlichen und ausserwissenschaftlichen Erfahrungen. Hinzu kommt die heute besonders dringlich gewordene Aufgabe der Aufdeckung und Wahrheitsprüfung aller in den Wissenschaften (besonders in den Geisteswissenschaften) verborgenen, ihre Methoden und Einstellungen mitbestimmenden weltanschaulichen (und das heisst eben immer auch: metaphysischen) Voraussetzungen.

e. Metaphysik in diesem Sinne ist kontinuierliche Fortsetzung der einzelwissenschaftlichen Arbeit in Richtung auf Prinzipien und ontische Struktur des Wirklichen. Eine grundsätzliche Abtrennung der unserem erfahrenden und erschliessenden Eindringen sich darbietenden 'Erscheinungen' von dem (uns etwa garnicht oder denn nur in besonderer 'Intuition' zugänglichen) Ansich der Dinge wird uns durch den Verlauf der wissenschaftlichen und philosophischen Forschungen keineswegs nahegelegt. Erscheinungserkenntnis ist immer zugleich Seinserkenntnis, Aufdeckung von Erscheinendem in den Erscheinungen. Das Mass der Erkenntnisschwierigkeiten und -begrenzungen wächst allerdings mit jeder Schicht der Seinsvertiefung; aber jede Erkenntnis einer Unerkennbarkeit ist immer zugleich auch positive Umreissung und Fixierung von Seiendem. Aufgabe der wissenschaftlichen Metaphysik ist, gegenüber den immer wieder auf bestimmte Schichten des Erscheinens sich begrenzenden Forschungsperspektiven der Wissenschaften, die immer neue Einstellung des Blicks auf das Ansichseiende.

f. Das eigentlich Grund- und Kerngebiet der so verstandenen Metaphysik wird eine differentielle Ontologie auf der Basis der natürlichen und wissenschaftlichen Erfahrung sein müssen. Die Arten des Seienden und die für sie jeweils charakteristischen Kategorien begrifflich festzulegen, ist, nach den Wucherungen der naturalistisch-mechanistischen Denkgewohnheit des 19. Jahrhunderts, wichtigste Aufgabe der Gegenwart geworden. Ständig wird Material dazu von den sich immer weiter ausbildenden Wissenschaften und Disziplinen, sowie von der philosophischen Phänomenologie gefördert. Metaphysik, in ihrer Zusammenarbeit mit den Wissenschaften, wird die alte Neigung zur konstruktiven Einheit zurückdrängen müssen zugunsten eines ausgesprochenen Willens zur unverkürzten Aufschliessung des Seienden nach der ganzen Vielheit und Unterschiedenheit der Seinsweisen, Seinsarten, Seinsstrukturen. Die Metaphysik ist mindestens ebensosehr deskriptive und analytische, wie konstruktive und synthetische Wissenschaft vom Gesamtwirklichen und vom Seienden im allgemeinen. Die alte Aristotelische Forschungsbasis der Metaphysik ist heute wieder neu zur 'ersten Philosophie' geworden.

THE EMPIRICISM OF J. S. MILL

J. L. STOCKS

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I. Mill's View of his own Historical Position

FROM the beginning to the end of his career Mill saw himself philosophically as a member of a rather unpopular minority. He conceived himself to be living in a time of strong reaction against eighteenth-century philosophy. In this reaction the leaders were the Germans, and their influence dominated thought both in France and in England. He was in his own view the champion, before a hostile public, of an older and sounder method than the fashionable mysticism and obscurantism. This diagnosis holds equally for the *System of Logic* (1843) and for the *Examination of Sir William Hamilton* (1865).

The ruling influences in the reaction, as Mill conceived it, were Thomas Reid for England, and for the Continent Immanuel Kant. But the roots of their doctrines lay further back, ultimately in Descartes, continuing through Spinoza and Leibniz to Kant, Schelling, and Hegel. The 'older and sounder' tradition is to be found in Bacon, Hobbes, Locke, Hume, and Hartley. In his own day and country it was represented by Bentham, James Mill, and, later, Alexander Bain, opposed by Coleridge and Hamilton.

Mill formulates this opposition so often, and in such various contexts, that there is an embarrassing wealth of material to draw upon in describing it.[1] Perhaps the best statement is that contained in the essay of 1840 on Coleridge, if it is remembered that this was written at a period of maximum estrangement from Benthamism and with an evident desire to make out the best possible case for the other side. What follows here is merely a summary of that statement.

Mill starts his account from what he calls 'their highest philosophical generalizations', i.e. from their account of the sources of human knowledge and their possible development. The prevailing theory of the eighteenth century was, he says, that of Locke, commonly attributed to Aristotle, that all knowledge consists of generalizations from experience. This involves the denial of the

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[1] See *Autobiography* (World's Classics, ed. Laski), especially pp. 151, 190, 230, 232. Further *Dissertations and Discussions*, i, Essays on Sedgwick (1835) and Coleridge (1840); ii, on Bailey (1842) and Whewell (1852); *Logic* (1843), Introd. and Bk. VI, ch. iv; *Letters*, i, pp. 113 (1839), 116 (1840), 146 (1849); Letter (1841) in *Journals of Caroline Fox*, ii. 325; *Auguste Comte and Positivism* (1865), pp. 71, 119; *Examination of Sir W. Hamilton's Philosophy* (1865), especially chapters i, ii, viii, ix.

a priori and of truths 'cognizable by the mind's inward light and grounded on intuitive evidence'. 'Sensation and the mind's consciousness of its own acts are not only the exclusive sources but the sole materials of our knowledge.' From this view Coleridge, with the Germans since Kant and most of the English since Reid, strongly dissents. They claim that the mind has a capacity within certain limits of perceiving the nature and properties of Things-in-Themselves. Above Understanding is Reason, a power which by direct intuition perceives things and recognizes truths not cognizable by the senses. These truths are not perhaps innate; but they are at most suggested by experience. As examples of such *a priori* truths and knowledge they cite the fundamental doctrines of religion and morals, the principles of mathematics, and the ultimate laws even of physical nature.

Even in the Coleridge essay Mill avows himself on this general issue an unqualified supporter of 'the school of Locke and Bentham'. Things-in-Themselves, 'the hidden causes of the phenomena which are the objects of experience', are radically inaccessible. 'We see no ground for believing that anything can be the object of our knowledge except our experience and what can be inferred from our experience by the analogies of experience itself; nor that there is any idea, feeling, or power in the human mind which, in order to account for it, requires that its origin should be referred to any other source.'

Even here, however, in what Mill calls the pure science of mind, 'Coleridge and the Germans' have not lived in vain. The Locke school needed rejuvenation. It had fallen low, into the 'shallow ideology' of Condillac and his followers. In pure metaphysics (which for Mill often seems to approximate to psychology) the only advance since Locke is that made by Hartley. Even in this field then their protest was timely and salutary. But this is the least valuable part of their philosophical contribution. Their services are better seen in 'practical philosophy'.

In this department of thought the end of the eighteenth century found England differently situated from the Continent. On the Continent philosophy was master, and tradition was beaten off the field: in England compromise reigned. Hence opposed types of error: 'On the Continent the extravagances of new opinions; in England the corruption of old ones.' The *philosophes* aimed only at destruction. If superstition, priestcraft, prejudice, and the like were once destroyed, all the virtues and graces must, they thought, spontaneously appear. In this they were wrong, mistaking the familiar for something universal and natural. They failed to detect the manifold civilizing and restraining influences on which the social order they knew depended. The time was in fact one at which destruction was needed; but they encouraged their contemporaries to throw away the shell without preserving the kernel.

This gave the school to which Coleridge belonged its great opportunity. It was able to meet a philosophy which blindly anathematized the past with a philosophy which was 'at once a severe critic of the new tendencies of society and an impassioned vindicator of what was good in the past'. It succeeded in achieving a genuine philosophical detachment which removed all suspicion of mere Tory partisanship. Looking far beyond all immediate and temporary controversies, this school 'has done exactly what we blame the eighteenth-century philosophers for not doing'.

Mill characterizes the new contribution to practical philosophy in the following sentences:

> They were the first, except a solitary thinker here and there, who enquired with any comprehensiveness or depth into the inductive laws of the existence and growth of human society . . . who pursued, philosophically and in the spirit of Baconian investigation, not only this enquiry, but others ulterior and collateral to it. They thus produced, not a piece of party advocacy, but a philosophy of society, in the only form in which it is yet possible, that of a philosophy of history; not a defence of particular ethical or religious doctrines, but a contribution, the largest made by any class of thinkers, towards the philosophy of human culture. . . .
>
> Hence that series of great writers and thinkers from Herder to Michelet, by whom history, which was till then 'a tale told by an idiot, full of sound and fury, signifying nothing', has been made a science of causes and effects; who, by making the facts and events of the past have a meaning and an intelligible place in the gradual evolution of humanity, have at once given history, even to the imagination, an interest like romance, and afforded the only means of predicting and guiding the future, by unfolding the agencies which have produced and still maintain the present.[1]

One final quotation. At the beginning of the discussion summarized above, Mill states the general opposition between the two schools of thought in the following terms:

> The Germano-Coleridgian doctrine expresses the revolt of the

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[1] Mill clearly thinks that this more valuable side of the reaction has hardly penetrated England. He complains in a footnote of Cimmerian darkness still prevailing wherever 'recent foreign literature or the speculations of the Coleridgians have not penetrated'.

human mind against the philosophy of the eighteenth century. It is ontological because that was experimental; conservative because that was innovative; religious because so much of that was infidel; concrete and historical because that was abstract and metaphysical; poetical because that was matter-of-fact and prosaic.

II. Mill's Diagnosis Examined

The most interesting feature of Mill's account of this phase in the history of European thought is that the conflict, as he sees it, is one in which each side represents a combination of opposites. The German school are ontologists or metaphysicians, believers in *a priori* knowledge and in intuitive or self-evident principles. But they are also pioneers in the concrete historical method: in the social field at least, it is they, and not the heirs of Bacon, who are the experts in Baconian and inductive investigation. The school of Locke, on the other hand, is experimental, maintaining that there is no innate or intuitive knowledge and that all truth is derived from experience; but in the social field it champions an abstract and 'metaphysical' method.

At the time when Mill wrote the article on Coleridge he was engaged upon the Sixth Book of his *Logic* ('On the Logic of the Moral Sciences'), and the aspect of the opposition which most interested him was the contrast of methods in Social Science. This question had been in his mind for ten years and more. His attention had been violently called to it in 1829 by the *Edinburgh Review*'s bitter attack on his father. The young Macaulay clinched his assault with the challenge: 'Our opposition is fundamental: we believe that it is utterly impossible to deduce the science of government from the science of human nature.' When Macaulay's two articles appeared, Mill was already sitting very loose to the Utilitarian creed. It is indeed doubtful whether in 1829 he would have consented to call himself a Benthamite or Utilitarian at all. The *Autobiography* (pp. 132–6) tells the story in detail, and in the main accurately, though perhaps it slightly under-estimates the strength and duration of this anti-utilitarian reaction. Full weight is given here to Macaulay's articles, but only as bringing to a head a development already in progress, and the reader is referred to the Sixth Book of the *Logic* for Mill's solution of the problems raised.

What Mill offers us in the *Logic*, *more suo*, is a compromise or middle position. The Utilitarians, he says in effect, were wrong, as Hobbes was wrong, in believing in the possibility of a social science modelled after deductive geometry. On the other hand, Macaulay and the opponents of the Utilitarians were equally wrong in calling for a purely inductive method. 'In social phenomena the composition of causes is the universal law.' The complexity of the facts makes the experimental methods inapplicable. The right method is what he calls the physical or concrete deductive method, which begins by determining the laws of the separate agencies at work and ends in general theorems as to the effects of legislative measures and forms of government.

In this Sixth Book we find Comte superimposed upon Bentham. (Comte began to publish his *Philosophie Positive* in 1830, but Mill made its acquaintance first in 1837.) Bentham was right in believing, as against Montesquieu and his followers, that a universal science of politics was possible; he was right again in thinking that the possibility of such a science depends on there being discoverable 'tendencies common to all mankind'. But Comte was right in his theory of the *consensus* of social phenomena. Hence Mill sketches his plan for an Ethology, which shall determine the laws of the formation of character in individuals and in nations, but at the same time refuses to claim for the *a priori* argument any independent or absolute value. 'An amount of knowledge quite insufficient for prediction may be most valuable for guidance.'

In Mill's view this compromise seemed a decisive departure from political utilitarianism, and it must be remembered that in the first half of the nineteenth century utilitarianism was a political label. He seems to have felt that it was only in metaphysics that he remained a member of the school in which his father had brought him up. As early as 1833 he wrote to Carlyle (*Letters*, i. 85) that his opinions 'except in mere metaphysics are quite as unlike theirs as yours are'. Again in the following year (*Letters*, i. 91) he says he has scarcely one of his 'secondary premises' in common with them. It is significant that the work of his father's which he edited was the *Analysis of the Human Mind*. Towards the end of his life he adopted the name of utilitarianism for his ethical views, but by that time the Utilitarian Radicals had left the political scene.

The formula for Mill's development is complicated by the powerful influence of Comte—in whom perhaps for a time he saw the merits of the German movement without its defects, though later he found plenty of false mysticism in Comte—but, putting Comte aside, it is probably true to say that Mill felt himself, and in the main rightly, as compromising on the opposition from which we started. Between religion and infidelity his compromise was expounded, to the scandal of many of his followers, in the posthumous *Essays on Religion.* For the rest, he retained his preference for the experimental as against the ontological, for innovation as against conservatism; but he deserted the abstract and metaphysical for the concrete historical method, and the first article of his political creed became a belief in those individual differences which the abstract method overlooked. What is strange is that he does not claim for the resulting position that it is a more consequential empiricism than that in which he was brought up.

III. EMPIRICISM?

This brings us to the question, What is Empiricism? Or, in the particular case, What is Mill's Empiricism?

Starting from the latter question, we find in Mill two main motives, which are to some extent at odds with one another. (1) It is an essential part of his empiricism to champion the ideals and methods of natural science. He is deeply concerned to prove the applicability of these ideals and methods to human life and society. But the ideal of science is deductive; and only so far as this ideal is realized is universality achieved and prediction made possible. For human life then he wants a science as much deductive and as little observational as possible. It would be best of all if the geometrical parallel would fit. In fact it does not, and he accepts a second best. But matters from which deduction is wholly excluded are regarded as left in the darkness of 'mere empiricism' (*Logic*, VI. i and x).

But (2) Mill's experience of life convinced him of the sovereign importance of individual originality, as the one spring and source of fruitful advance. That here science is baffled he will not admit. He seeks desperately for a science that will reveal its secret. Hence these poor abortive ghosts of an individual and social ethology. which long haunted him, but never came to life. In the historical thought of the idealist reaction he caught a glimpse of what he was seeking, and wrongly ascribed to it a Baconian and inductive method. But the reaction was really in revolt against the abstractions of science, continuing Berkeley's protest against the corpuscularian philosophy. It sought the concrete fact, and particularly in history, which is the antithesis of science. In virtue of his experience, but not of his empiricism, Mill reacted sympathetically to this development.

It may perhaps be suggested that Mill was no true empiricist;

and it is certainly true that most recent empiricism, e.g. that of Bergson or of William James is of a different cast. But this devotion to the scientific ideal, with its consequent inability to digest history until it is falsified into science, is part of the tradition of the European school of experience. This is the form of rationalism, it seems, into which empiricists readily fall. Historically, hedonism has consistently accompanied a sensationalist or empiricist theory of knowledge; and hedonism is the most scientific and rationalist of all theories of conduct. Hedonists claim to present a science of action, exaggerating more than any other ethical school the power of man to determine by reasoning the course of his life. In England the school of experience looked to Hobbes and Locke as their founders. But Hobbes claimed to be the Galileo of Civil Philosophy, who made it scientific and deductive by determining once for all the laws of human motion; and Locke argued that in morals and politics the deductive and demonstrative method was at home. Thus, whatever may be thought of Mill's attitude to the idealist philosophy of history—as to which, indeed, the tradition gave no clear lead—his conception of the place of science in human affairs was true to the empirical tradition as he knew it.

The explanation of this must be sought by an attempt to answer the more general question. What is empiricism? What is the vital centre of the movement of thought on which the people we call empiricists are carried? The school of experience has revolutionized itself since Mill's day, and the leaders in this revolution, like Bergson in France and William James in America, have reflected much and fruitfully on the meaning of this term, which James at least was proud to claim for his own doctrine. (For James, see particularly R. B. Perry's preface to the posthumous *Essays in Radical Empiricism*, with the references there given. For Bergson, see the opening pages of his Oxford lectures entitled, *La Perception du Changement.*) The essential difference between the new empiricism and the old is briefly indicated in James's principle that a true empiricism must base itself on every kind of experience, with its implied criticism of the older empiricism as unduly sensationalist. But this development does not of itself affect the position of thought or science. James and Bergson agree that thought is only a second best, forced upon us by the limitations of our senses. Bergson likens thought to paper money. James asserts that 'the deeper features of reality are found only in perceptual experience'. From this starting-point it is natural to conceive thought, as Mill conceived it, with science for its characteristic expression, as a convenient device which by abstraction and generalization enables us to determine the outlines of that which we are unfortunately not in a position to perceive.

Now experience is in fact confined within narrow limits, even when every kind of experience is taken into account. By it alone man cannot hope, in Hume's phrase, to 'people the world'. Hence the emphasis on the sovereign value of direct experience, the denial of all originality to '*reason*', tends to have the rather paradoxical-seeming effect of bringing into exaggerated relief the importance of *reasoning*. It is the art of thought to make a little experience go a long way, as paper money builds a vast credit system on a small accumulation of specie. In this way the empiricist falls naturally into a conviction of the supreme value of scientific abstraction and an ardent desire to extend its beneficent work.

I claim that it is possible on these lines to show that the combinations of apparent opposites, which we noted as marking Mill's description of the rival schools of thought in his time, represent no internal contradiction on either side, but a natural development from the starting-point of each. I have confined my discussion to Mill's own side of the issue. Of the others it is perhaps sufficient to say here that, as those who depreciate reason tend to overestimate reasoning, so they, in vindicating reason, in claiming for thought freedom and originality, may legitimately aim at reducing reasoning to strict subordination.

DIE PHAENOMENOLOGIE UND IHRE VIELDEUTIGKEIT

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1. WILLIAM JAMES hat den Pragmatismus als 'a new word for some old ways of thinking' bezeichnet; jenes Wort war aber nur der neue Ausdruck für *eine* ältere Denkart, welche bis auf BACON und HOBBES zurückgeht. Mit der Phaenomenologie steht es anders. 'Phaenomenologie' ist in der Tat ein Wort für 'some' ältere Denkverfahren, nämlich, soweit ich sie für berechtigt halte, für drei, soweit ich sie für unberechtigt halte, für noch viel mehr. Das stiftet, erstens, eine grosse Verwirrung; denn jeder, der das Wort 'Phaenomenologie' gebraucht, versteht etwas anderes darunter. Es birgt aber, zweitens, erhebliche Gefahren in sich für einen gesunden Fortgang strenger Philosophie. Denn gewisse neuere 'phaenomenologische' Richtungen, welche in ihrem Wesen von höchst bedenklicher Art sind, gehen nun eben unter einem Namen, der auch verschiedene, zwar nicht neue, wohl aber gut fundierte Formen des philosophischen Denkens bezeichnet.

2. Die *berechtigten* drei Formen der Phaenomenologie wurden früher als *deskriptive Psychologie*, als *Ontologie* im Sinne einer Kategorien- oder Bedeutungslehre, und als *Definition* empirischer Begriffe bezeichnet.

Ein erheblicher Teil der sogenannten Phaenomenologie ist in der Tat 'deskriptive Psychologie' in dem Sinne, dass die unmittelbar bewussten Erlebnisse in ihrer Unmittelbarkeit sorgfältig beschrieben werden, meist mit Ausdrücken des täglichen Lebens, also in bildlicher Form. Dieser Teil der Phaenomenologie ist, wenn er nur nicht *mehr* sein will, als er sein *kann*, unantastbar und liefert wertvolle Vorarbeit, *mehr freilich nicht*, für eine strenge theoretische Psychologie. Denn man muss das Material, eben die Erlebnisse, genau kennen, welche man später im Sinne einer genetischen Theorie verarbeiten will. Zu wünschen wäre freilich, dass sich dieser Zweig von dem, was Phaenomenologie genannt wird, mehr als bisher darauf legte, die wahren *Elemente*, d.h. die nicht weiter zerlegbaren Glieder alles Erlebten herauszuarbeiten. Denn die Frage nach den Elementen alles Erlebten bleibt trotz aller Ganzheitspsychologie *bestehen*: nur ein Zusammengesetztes kann ja doch 'ganz' sein. Ferner wäre es nötig, die verschiedenen

Formen oder Typen von Ganzheit sorgfältig festzustellen, die 'ganzmachenden Rahmen', wenn ich so sagen darf.

Der *ontologische* Teil der Phaenomenologie ist zwar nichts Neues, wohl aber etwas sehr Solides und Wertvolles; er ist in Wahrheit, um mit Husserl zu reden, 'strenge Wissenschaft', wenn er sich von jeder Metaphysik im Sinne eines platonischen Realismus frei hält und nur die elementaren vor dem Bewusstsein stehenden Bedeutungen *als* Bedeutungen und ihre, aus ihrem Wesen folgenden, Beziehungen, welche 'apriori' evident und nichts anderes als Kant's 'synthetische Urteile apriori' sind, untersucht. Die gesamte Syllogistik, allgemeine Relationstheorie, Arithmetik, Geometrie, Farbenlehre und vielleicht noch einiges andere gehören hierher. Die Elemente selbst als Elemente werden hier durch den ersten Teil der Phaenomenologie, den deskriptiven, geliefert, z.B. die Bedeutungen, welche durch die Worte *dieses*, *solches*, *verschieden*, *nicht*, *bezogen*, *weil*, *soviel*, *neben*, *damals*, *Lust*, *gut*, usw. ausgedrückt werden und, als 'Elemente', indefinabel sind. Apriori erfasse ich nun eben gewisse notwendige, und doch nicht auf analytische Urteile zurückgehende, Zusammenhänge unter den Besonderheiten mancher dieser Bedeutungen, zumal im Rahmen der Begriffe *soviel*, *weil*, *neben*. Andere ebenfalls durch selbstbesinnliche Deskription gelieferte indefinable Elementarbedeutungen, wie z.B. die durch die Worte *Lust*, *Unlust*, *endgültig* (*wahr*) usw. bezeichneten, geben zur aprioristischen Erfassung solcher Zusammenhänge keine Veranlassung. Das alles ist, wenn man so will, Kategorienlehre und Lehre von kategorischen Axiomen, obwohl es nicht das ist, was Kant Kategorienlehre nannte. Es liegt logisch *vor* ihr, und Kant's 'Kategorien' und kategorische Sätze sind, sozusagen, erst Anwendungen jener Urkategorienlehre, die sich angesichts des Gegebenen als besondere Ordnungsformen ergeben. Hierher gehören schon Begriffe wie 'Ding' und 'Kausalität'; auf sie können allenfalls Postulate, aber keine Axiome gegründet werden.

Endlich besorgt die legitime Phaenomenologie das, was sonst *definitorische Festlegung empirischer Sachverhalte* hiess; gewiss eine verdienstliche Sache. Diese Sachverhalte können physischer, psychischer und psychophysischer Art sein. Wie wollen wir, das ist die Frage, das, was wir auf Grund alltäglicher Erfahrung 'Wahrnehmung', 'Erinnerung', 'Materie', 'Organismus', 'Tier' usw. nennen, scharf definieren und begrifflich festlegen? Das Gegebene, d.h. die ganze Fülle des Erlebten, ist hier das Material, ist der Boden, auf dem gearbeitet wird. Die definierten Begriffe sind *Ordnungsformen*, erfasst oder, um den bei den Phaenomenologen beliebten Ausdruck zu gebrauchen, 'geschaut' inmitten der Gesamtheit jenes Erlebten. Sie sind natürlich nie etwas Endgültiges, müssen sich vielmehr 'bewähren'—hier ist der Pragmatismus durchaus im Recht. Denn die Erlebnisgesamtheit wird immer reicher mit der Zeit. Was heute als einen empirischen Sachverhalt richtig treffend definitorisch gesetzt ward, braucht morgen nicht mehr ganz richtig zu sein.

Soweit die freilich nicht neuen, aber berechtigten Seiten der 'Phaenomenologie'.

3. Berechtigt, ja meines Erachtens sehr bedeutsam ist nun aber auch noch ein gewisses an der allgemeinen *Einstellung* der Phaenomenologie, abgesehen von ihrer berechtigten Arbeit auf den von uns genannten Sondergebieten, und es ist meine Pflicht, dieses Wertvolle an der allgemeinen phaenomenologischen Einstellung scharf zu betonen, ehe ich zu Erörterungen übergehe, welche weniger günstig für die Phaenomenologie ausfallen müssen.

Ich habe die Hauptsache schon oben gesagt: ich schaue *in* den unmittelbar erlebten Sachverhalten Ordnungstypen oder Ordnungsformen, z.B. die verschiedenen physischen, psychischen oder psychophysischen 'Gesetze', seien es Substanz- oder Kausalgesetze. Ich schaue sie *in* ihnen: diese gegenständliche Wendung ist das Wesentliche und Richtige. Nicht 'mache' ich jene Typen und Formen; nicht schreibe ich, wie KANT meint, der Natur (und der Psyche) ihre Gesetze vor. Und ob 'die Natur unseres Gemütes sie ursprünglich hineingelegt' hat, das kann eine unbefangene Philosophie gar nicht von vornherein wissen; das ist eine metaphysische Hypothese. Hier geht HUSSERL's Phaenomenologie mit MEINONG, REHMKE und meiner eigenen Auffassung; auch wohl mit dem britischen 'Realismus', wenn ich ihn richtig verstehe.

'Geschaut' also werden *im* Erlebten: erstens gewisse Elementarien, zweitens gewisse apodiktische Zusammenhänge ('Axiome') im Rahmen einiger solcher Elementarien, welche 'Bedeutungen' sind, drittens gewisse nicht apodiktische, sondern stets — wie HUME auf's klarste sah — verbesserbare: hypothetische Ordnungstypen empirischer Art. Zum letzten gehören schon, als recht zusammengesetzte Angelegenheiten, diejenigen Typen von Ordnung, welche wir als 'Ding', als 'fremdes Bewusstsein' bezeichnen, erst recht alle besonderen Ding- und Geschehensbegriffe (Energie, embryonale Potenz, Gedächtnis usw.).

4. Nun aber — und damit kommen wir zu der unseres Erachtens *unberechtigten* Seite der Phaenomenologie — nun sagen uns die Phaenomenologen gern, dass sie 'Wesen' (*essentia*) schauen.

Das Wort hat auf dem Gebiet der nicht metaphysischen, rein bedeutungshaften Ontologie, von der wir redeten, einen klaren Sinn: es bedeutet 'Sosein'. 'Dreieck', 'Parabel', der Modus 'Celarent' haben in der Tat ein in *Endgültigkeit* erschautes Sosein-'Wesen', aus dem vieles 'folgt'.

Aber was ist 'Wesen', wo es sich um *Empirisches* handelt? Doch stets *nur das*, *als was* ein auf Empirisches gehender Begriff definitorisch *festgelegt* wurde. Das aber kann sich an der Hand der Erfahrung jeden Tag ändern; es ist stets *vorläufig*; *nie* weiss ich, dass dieses 'Wesen' *so* sein *muss*, wie es ist, und auch *nie* weiss ich, dass das durch einen solchen Wesensbegriff Bezeichnete im empirischen Sinne *da* sein *muss*. Dieses Nicht-Wissen um Sosein- und Dasein-müssen heisst geradezu 'empirisch' wissen.

Hier nun behaupten die Phaenomenologen, zumal in jüngster Zeit, ein *müssen* ohne jede Berechtigung. Sie sehen nicht das überaus Konstruktive, Zusammengesetzte an allem empirisch Gesetzten. Und sie gehen weiter: 'Ding' und 'fremdes Ich' sollen *unmittelbar* in *Endgültigkeit* erfasst werden, sollen sich 'selbst geben', sollen als solche in ihrer Totalität 'wahrgenommen' sein.

Nun haben wir zwar selbst gesagt, dass ich *im* Erlebten Ordnungsformen schaue und nicht etwa 'mache'. Ja ich gebe zu, dass diese Ordnungsformen von dem dazu besonders Begabten oft blitzartig geschaut werden. Aber doch immer als *Hypothese*, als kurzer Ausdruck für sehr komplizierte Zusammenhänge. 'Ding' und 'Du' sind erst im Laufe der Jahre, freilich der ersten Jugendjahre, von mir 'geschaut', allmählig, Schritt um Schritt. Für den Erwachsenen, der seine psychische Vorgeschichte vergass — fast alle neueren Phaenomenologen taten das — sieht es dann freilich *so aus*, *als ob* 'Ding' und 'Du', ebenso übrigens die 'gesehene' dritte Dimension, ganz ursprünglich und unmittelbar geschaut würden wie reine Bedeutungszusammenhänge. Aber sie sind es nicht! Die Phaenomenologen werfen hier reine und empirische Bedeutungszusammenhänge durcheinander, wie sie denn überhaupt keinen scharfen Begriff der empirischen Wirklichkeit haben und den Begriff des 'Gegenstandes' nicht genügend gliedern. Man zwinge den Phaenomenologen 'Ding' und 'Du' zu definieren; dann wird er schon merken, wie es mit seiner angeblichen 'originären' Schau steht! Ich glaube nicht, dass er da hinsichtlich des 'Du' um den heute so verpönten Analogieschluss herumkommen wird, der natürlich von uns nicht als formal exakter aristotelischer Schluss gedacht wird — wie übrigens die meisten 'Schlüsse' des täglichen Lebens.

Der verstorbene *Scheler*, ein genialer Denker auch wo er sich irrte, ist hier ein gefährliches Vorbild geworden. Von ihm rührt ja letzthin jene angebliche unmittelbare Wahrnehmung von Ding und Du her.

Viel gilt den Phaenomenologen der Satz, dass man 'Wesen', also Sosein, für sich betrachten und das *hic et nunc* seiner Verwirklichung 'einklammern' könne. Diese Einsicht ist zwar nicht neu, aber richtig. Sie besagt aber nur im Rahmen der reinen Bedeutungsschau (Mathematik usw.) etwas Wichtiges. Denn nur hier können, hier allerdings, aus dem 'Wesen' heraus Relationszusammenhänge apriori erfasst werden ('synthetische Urteile apriori'). Wo es sich aber um empirische Soseine handelt, z.B. wenn 'Organismus' oder 'Staat' definiert wird, kann immer nur das aus dem Sosein wieder herausgeholt werden, was, ausdrücklich oder nicht, in es hineingelegt worden war.

5. Aber weiter: Die neuesten Phaenomenologen kennen den Unterschied von Erscheinung und Ding an sich nicht mehr. Das, was sonst Erscheinungswelt hiess, *ist* ihnen die Ansichwelt, die metaphysische Welt geworden. Ihre Schau soll also unmittelbar *das* Wirkliche treffen; ein anderes Wirkliche gebe es nicht, sagen sie uns.

Hier lehnen wir zweierlei ab: erstens, dass ein wahres Ansich nicht bestehen soll, und zweitens, dass Erscheinung das Ansich sei. Denn das sind zwei verschiedene, sich freilich durchdringende Behauptungen.

Wir selbst geben zu, dass sich die Existenz eines Ansich *nicht beweisen* lasse; nur glauben können wir an sie und dürfen es. Wir wissen freilich *nicht*, dass sie *nicht* besteht. Wer das lehrt, ist 'negativer Dogmatiker'.

Wer es vorzieht, mag also die Metaphysik bei Seite lassen. Aber er darf nun nicht die Welt des für mich, 'meine' Welt, für das Wirkliche, das Ansich, ausgeben.

Sagen wir dasselbe noch einmal anders: Wer an ein Ansich glaubt, für den ist 'meine' Welt *Erscheinung* des Ansich. Für den, welcher nicht an ein Ansich glaubt, ist das Wort 'Erscheinung' ohne Sinn, er muss von 'Welt' schlechthin reden, welche ja jedenfalls 'seine' ist — nach anderem fragt er gar nicht. Aber Eines geht auf keinen Fall an: 'meine' Welt ohne Weiteres als 'Ansich-Welt' auszugeben.

Oder noch anders: Der Solipsismus ist ein *unwiderleglicher*, nur durch Glauben überschreitbarer Standpunkt; nicht leugnet er ein Ansich, aber er kümmert sich nicht darum. Unzulässig aber ist es, ohne weiteres zu dekretieren, dass die solipsistisch erfasste Welt eine An-sich-Welt sei.

Aber sie sei doch gültig für alle Iche, für Jedermann, für 'das Bewusstsein'! Was heisst denn das? Woher weiss ich von 'allen Ichen', von 'Jedermann', von 'dem' Bewusstsein? Das sind für den *strengen* Philosophen doch alles 'meine' Gegenstände.

Hier sieht man, meine ich, wie sich die Fehler der neuesten Phaenomenologen wechselseitig durchdringen: die falsche Lehre vom angeblich unmittelbar 'wahrgenommenen', sich 'selbst gebenden' Du, und die falsche Lehre, dass meine Welt ohne weiteres die Ansich-Welt sei.

Wir selbst sind der Ansicht, dass das, was das Wort 'Ich weiss etwas' oder 'Ich erlebe etwas' ausdrückt, *an sich wirklich* sei — aber es ist erst 'wirklich', *darf* erst als 'wirklich' gelten, *wenn* der Begriff 'an sich' einen echten Sinn, der ihn im Gegensatz zum 'fürmich' bringt, ausdrücklich bekommen hat. Und das kann, wie wir sagten, nur durch einen glaubenshaften Akt geschehen.

6. Springen also, sozusagen, die neuesten Phaenomenologen geradezu in die Metaphysik hinein, so ist es nun auf der anderen Seite seltsam, dass sie zwei der ältesten und bedeutsamsten metaphysischen Probleme bei Seite schieben: das *Leib-Seele-Problem* und das Problem der *Unsterblichkeit.*

Beides sind unseres Erachtens freilich ebensowenig von Anfang an 'metaphysische Probleme', wie irgend ein anderes Problem von Anfang an ein metaphysisches Problem ist. Beide sind zunächst Ordnungsfragen im Rahmen des 'für mich': ja, man kann Spiritist sein im Rahmen des Solipsismus. Der desinkarnierte Geist ist dann eben ein Ordnungsbegriff, den ich im Rahmen 'meiner' Welt etwas bedeuten lasse, und nach Weiterem frage ich ja nicht.

Aber die Phaenomenologen nehmen ja doch die fürmich-Welt ohne Weiteres metaphysisch. Da ist es um so unbegreiflicher, dass sie *diese* Probleme als Probleme ablehnen oder gar nicht sehen. Halten wir uns nur an den reichsten Geist unter allen Phaenomenologen nach Husserl, an *Scheler*, so hat er sich bekanntlich oft gewandelt in seinem Leben. Einst war ihm persönliches Ueberleben restlos evident, wie übrigens noch vieles andere. Später ward er monistischer Pantheist, und da soll nun zumal das Problem 'Leib und Seele' seinen 'metaphysischen Rang verloren' haben. Es wird von Scheler sowohl wie von gewissen seiner Nachfolger so etwas wie eine unbestimmte 'Einheit' der materiellen und der seelischen Seite des Menschen gelehrt, also letzthin eine hylozoistische Theorie, die sachlich von den Ansichten etwa eines

Haeckel gar nicht so sehr verschieden ist, wenn sie sich auch in eine sehr vornehme Sprache kleidet. Das wird gelehrt ohne jeden zureichenden Grund, ja geradezu im Gegensatz zur modernen Biologie und Psychologie; es wird einfach hingesetzt. Wie steht es dann mit der *Leiche*, so möchten wir fragen, im Unterschied vom Lebendigen? Können hier die Lehrer von der 'leiblich-seelischen Einheit' des Menschen eine Antwort geben, die von der, die irgend ein 'Monist' Haeckel'scher Prägung gegeben haben würde, sachlich verschieden ist?

7. Gehen wir in der Betrachtung noch einmal zurück auf die eigentliche philosophische Methode der Phaenomenologen, das 'Schauen', so haben wir zugegeben; erstens, dass reine Urbedeutungen im Rahmen des Gegenständlichen und ihre Zusammenhänge in der Tat *apriori*, d.h. unabhängig vom *Quantum* der Erfahrung, in Endgültigkeit erfasst, und, zweitens, dass *in* den Besonderheiten der mit dem Laufe der Zeit dauernd wechselnden Gegenständlichkeit besondere Ordnungstypen geschaut werden. Diese sind Kombinationen von Urbedeutungen und sind stets als 'verbesserbar' anzusehen, d.h. ihre zeitlose Gültigkeit ist hypothetisch. Das Sosein (*essentia*) dieser Kombinationen kann für sich, d.h. unabhängig von *hic et nunc* ihres Verwirklichtseins betrachtet werden (Husserl's 'Einklammerung').

Die *realisierten* Kombinationen von Urbedeutungen, deren Realisation nur Erfahrung im engeren Sinne des Wortes lehren kann, sind nun stets nur *einige* aus der grossen Fülle der logisch *möglichen* Komplexe von Urbedeutungen: alles, was uns Märchen und Sagen erzählen, wäre auch 'möglich' und würde sich auch aus den Urbedeutungen aufbauen lassen. Aber 'es *gibt* das nicht'.

Die Phaenomenologen, zumal die jüngsten, tun nun so, als *müsse* es, erstens, gerade die empirisch realisierten Kombinationen von Urbedeutungen empirisch 'geben', und als erfassten sie, zweitens, sowohl Sosein- wie Dasein-müssen *unmittelbar* mit einem Schlage, und nicht als Ergebnis langer intellektueller Irrfahrten. Das gilt zumal vom 'Ding' und vom 'Du'.

Damit schreiben die Phaenomenologen dem Ich ein ganz *neues*, sonst *nicht irgendwie bekanntes* Schauensvermögen zu.

Nun bin gerade ich durchaus nicht abgeneigt zuzulassen, dass es noch unbekannte Schauens-, oder besser Wissenswege geben möchte, ja, ich stehe dem, was in diesem Lande *Psychical Research* genannt wird, sehr positiv und sympathisch gegenüber.

Aber ein solches Vermögen muss in Strenge *nachgewiesen* sein und darf, z.B. angesichts von Telepathie und Gedankenlesen, erst dann *als* neues elementares Vermögen zugelassen werden, wenn alle Möglichkeiten mit schon bekannten 'Vermögen' auszukommen erschöpft seien.

Von solchem Nachweis ist nun bei den Phaenomenologen gar keine Rede. Sie behaupten einfach, sie prüfen gar nicht, ob nicht die von der klassischen Philosophie zugelassenen und von ihr gekannten Vermögen des Wissenserwerbs — Schauen von Urbedeutungen und Schauen von besonderen verbesserbaren Ordnungstypen *im* Gegebenen — genügen. Sie genügen unseres Erachtens ohne jeden Zweifel, und die Tatsachen nötigen *hier*, d.h. etwa angesichts der Setzungen 'Ding' und 'Du', keinesfalls dazu, eine neue Art des Wissenserwerbs einzuführen.

Und es kommt hinzu, dass das angeblich unmittelbar Erfasste am Erlebten ohne Weiteres für metaphysisch ausgegeben, der echte Begriff des Metaphysischen aber, der im Gegensatz zum Erlebten als Erscheinung steht, gar nicht gesehen wird. Alles ist auf *Wunsch* gegründet; man *wünscht* ein Wissen, das erstens unmittelbar in Vollendung erworben und zweitens absolut ist. Man tritt zurück hinter die gesamte klassische Philosophie von DESCARTES über LOCKE, HUME, BERKELEY, LEIBNIZ bis KANT; man *annulliert* diese Philosophie.

Es ist aber *gefährlich* für den Fortgang gesunden Denkens Wissensinhalte auf den Wunsch zu gründen, ohne Kontrolle neue Wege des Wissenserwerbs zuzulassen, und das, was man allenfalls 'glauben' mag, anzusehen, als sei es sicheres Wissen.

Die Phaenomenologie, wie sie heute betrieben wird, ist eine Gefahr für die strenge Philosophie.

THE RELATION BETWEEN METAPHYSICS AND RELIGION

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THERE is a strange difficulty in writing a paper on the relation between metaphysics and religion as a preparatory contribution to a discussion at an International Congress in these days. For the divergencies of opinion and terminology are wide, and nobody can predict what exact meaning the terms 'metaphysics' and 'religion' will bear in the concrete situation of the discussion.

Traditional logic prescribes that a discussion should begin with an exact definition of terms. But for a modern thinker this demand seems to rest on a somewhat naïve assumption, i.e. that an exact definition of all terms used can be reached in a finite time by means of a finite number of words. And as regards such terms as 'metaphysics' and 'religion' the history of the last scientific generation has shown that at least these terms have as yet not got a quasi-stationary connotation. When I began to philosophize as a schoolboy—in the last decade of the nineteenth century—it appeared to me and my friends quite easy to give a description of the relation between metaphysics and religion. We would have said: This is the relation between two dying superstitions, for metaphysics and religion both rest upon the false assumption that we can know more about the Universe than empirical science can teach us.

It would be waste of time to show that this statement was not quite correct; the fact itself that a Session of our Congress will be devoted to the discussion of their relations shows that for the great majority of philosophers in 1930 neither metaphysics nor religion is either dying or mere superstition. However, even in this rather incorrect statement there was some truth. Religion and metaphysics are words which imply an attitude towards the Universe, and because of this common element it is possible to discuss their relation. I deliberately said 'an attitude towards' the Universe, not 'a mode of thinking upon' the Universe, because the latter wording would already contain a statement which is controversial. The opinion held, e.g. by Schleiermacher and Hegel that religion lies entirely in the domain of feeling, not of thinking, has still its adherents. Now in my opinion modern psychology of religion has shown that this view is incorrect: an attitude which deserves to be called religious contains logical or theoretical moments, or perhaps more exactly a religious attitude is a supra-theoretical, not an infra-theoretical structure.

As regards metaphysics nobody will contest, I presume, that if it is anything it is a mode of thinking. As a basis of our discussion I should like to propose this introductory definition, that we understand by metaphysics the limit to which systematic thinking upon the Universe approaches if it takes more and more facts into consideration. Of course this phrase assumes that there is enough agreement on such terms as 'systematic thinking', 'Universe', 'facts', &c., to start a discussion. It is not necessary, however, to enter into a more detailed investigation on these points. For it is already clear that there exists a relation of an intricate character between metaphysics and religion. This may be a relation of harmony or of disagreement, but indifference between them is impossible, because both of them envisage the same object in an attitude which includes theoretical views. Of course this does not imply that the religion and the system of metaphysics of an individual philosopher *de facto* always harmonize. It would be easy to give examples from the history of philosophy to prove the contrary. But it proves in my opinion that as a methodological demand we may state that the religion and the metaphysics of a philosopher, if both of them exist, *ought* to be in harmony. 'If both of them exist' means *in this case*, if he has religion at all, for it follows from our definition (and the significance of philosophy, which is implied in the programme of our Congress) that a philosopher without metaphysics is a *contradictio in terminis*. For metaphysics is a complete theory of the Universe seen from a definite standpoint, and philosophy is the art of building such a theory. But religion is supra-theoretical, it includes more than theoretical aspects; it is possible therefore for a philosopher to have metaphysics without religion. Materialism is an example of a system of metaphysics incompatible with any religion. We shall analyse this incompatibility presently. But before doing so we must state that, just as a philosopher can exist without religion, so in an analogous way a religious mind may exist without metaphysics. For while it is essential, as we have said, that religion should comprise theoretical aspects, it is not necessary for the religious attitude to strive for a consistent system of thinking. As a first and very rough approximation we might even say that religion and philosophy in European history come from quite different sources, philosophy from

Greece and religion from Israel. While the Bible, of course, contains definite views, including theoretical assumptions, concerning the Universe (God), it never tries to bring them into a scientific, i.e. systematic, order and connexion. It has been the task of the second period of European history, the patristic and scholastic period, to give the first trial of a system in which the religion of the Bible finds also its philosophical, i.e. metaphysical expression. The Renaissance and the Reformation show that this attempt has failed. And the reason is obvious. The standpoint of Greek, especially of Aristotelean, metaphysics is incompatible with the system of axioms presupposed in Christianity.[1] The third period of European thinking shows a new start from the Greek metaphysical standpoint, often combined with the endeavour to assimilate as much of the Biblical standpoint as is not too clearly contrary to the Greek metaphysical axioms. The fourth period, which in my opinion is coming, will be characterized by the attempt to express Christian faith in a philosophical system, the axioms of which are not incompatible with its own deepest convictions.

But it is not our task to enter into historical considerations. The foregoing short observations are only intended to serve as illustrations of the possible relations between metaphysics and religion. We have now to enter in more detail into a question already touched: How is a metaphysical system such as materialism possible which excludes religion?

I have already said (p. 2) that I accept the view of recent psychology of religion, that religion is a supra-theoretical attitude, which regards not only intellect, or will, or feeling, but human personality as a whole. It is therefore neither a purely intellectual nor purely moral nor purely aesthetical attitude but a *personal* relation to the Universe. Now, going further in our analysis, we have to add that it is an attitude in which the individual is conscious of and fully recognizes his dependence on a superhuman Power. This Power may be seen as an impersonal Force (Deity in the terminology of Alexander) or as the expression of a personal Will (God). In each case it demands subjection of the Ego. Religion without Awe is a *contradictio in terminis*; this is the truth underlying Otto's famous theory of the 'Numinon' as the essence of religion, which I, however, cannot completely accept. Now materialism and other forms of naturalism, as e.g. the psychomonism of my compatriot Heymans, try to avoid such an awful subjection. These systems attempt, with more or less consistency, to philosophize from the standpoint that the human mind is not subject to a superhuman Power, but can itself bring the Universe under subjection. Of course the more modest the attitude is the more it is felt that not a single individual, but only mankind as a whole, or even a supra-empirical manhood, can fulfil this task of subjection. By the recognition of this individual dependence such a philosopher as Heymans approaches religious thinkers as Fechner and Paulsen, though he explicitly avoids such terms as God or Deity. He can even develop an ethical theory, though of course it must be strictly descriptive, and cannot claim any other than theoretical normative authority. The more the conviction prevails that human power can control the Universe, the more we get an attitude, in which Awe would be absurd, as the materialistic systems of the eighteenth and nineteenth century illustrate. At the end of these lies the claim of Max Stirner's well-known book: *Der Einzige und sein Eigentum*, that the individual Ego is the only existing source of power. The utter poverty of this theory, even from an exclusively rational point of view, and its neglect of the most powerful sentiments of all mankind—those of the author himself included—show that we have to do here with a 'pathological system of axioms', i.e. a system too narrow for the building of a system of philosophy in which real human experience can be expressed.

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[1] *Vide* the exceedingly illustrative exposition in Rickert, *Kant und die moderne Kultur*.

Of course it does not need further argumentation to show that the deepest motives of such a 'pathological system' are not theoretical. The irreligious attitude is not the result of an autonomous theoretical system of metaphysics or epistemology. On the contrary, the atheistic system of metaphysics is the expression of the Will to dominate the Universe, with repression or suppression (in the terminology of Rivers) of the arguments and experience which contradict such a Will. Of course it is utterly impossible to change this attitude by pure theoretical reasoning, because it is considered as a truth *a priori* that no argumentation is valid which would undermine this subjective conviction.

Coming now to those systems of metaphysics, the axiomatic basis of which is wide enough to allow the expression of religious convictions, we have—as we have seen above—to distinguish already in the first approximation between pantheistic systems which see the Universe as a supra-human impersonal Force, and theistic systems in which the Universe is the expression of a personal Will.

From the latter assumption indeed all theistic thinkers have to philosophize. And it is obvious that its most consistent expression will be found in Christian thinkers who, as their name indicates, not only see the Universe as the expression of a Personal Will, but who confess to have met Him, in Whom the Authority and Love of God entered Time and Space by taking human form. It is, of course, impossible to enter into details here. I have tried to develop them in my Dutch work *Creator and Creation.*

But, of course, such a system must be rejected by thinkers who have not had the experience characteristic of Christian faith. As R. Otto has shown in his quite recent admirable work on the Indian bhakti-religion, this does not mean that the theistic position necessarily must be given up. Non-Christian theistic religion is possible and can find its philosophic expression in a system of metaphysics.

But even if a thinker departs from theistic pre-suppositions he can preserve the dominating sentiment of Reverence and Awe in face of an impersonal Universe. In a well-known passage from 'Die pädagogische Provinz' in his *Wilhelm Meister* Goethe has expressed his conviction that all social and moral conduct finds its root in a threefold Reverence for that which is below man (the infra-human world), on the same level as man (our neighbour), and supra-human (the spiritual world). It would be easy to quote other traces of this conviction from Faust. But Goethe, of course, never brought this view of the world into a system of metaphysics; this was the task of his contemporaries, the builders of the great systems of speculative idealism. It is impossible to enter into details here, nor can I even give the differentiation between objective idealism as represented by Schelling or Hegel, which is more in conformity with Goethe's views, and subjective idealism (in Dilthey's terminology) as represented by Fichte.

Though divergent in their fundamental assumption about the relation of the Ego to the ultimate and deepest Essence of the Universe, Speculative Idealism and Personalism agree in so far as both of them acknowledge human personality as a positive value. But there are forms of religion and systems of metaphysics, which start from the opposite thesis. For Schopenhauer, a great part of mysticism and of Indian religion and thought, finite being is evil in itself. The hope and aim of each conscious individual ought to be to lose his individuality and become merged in the great Unknown and Unknowable, the One shapeless and homogeneous Unity which only by the Power of Evil breaks up into finite forms.

Though, of course, innumerable minor divergencies may exist, as far as I can see these are the great schools of thought which may be found in the history of mankind. The great question remains, if each of these systems may be developed more or less consistently within itself, what criterion will decide which is the best approximation to Truth? For the assertion that all of them must be equally near or equally far from Truth, would come to the same thing as saying that there is no Truth at all, and this assertion is self-contradictory.

But the contrary assertion, that there is Truth, does not involve that it will ever be given to all finite minds. So it may well be that in finite time these divergencies will not disappear. All that we can do as religious and metaphysical thinkers is to develop as correctly and conscientiously as possible the consequences of the facts we discover in the light of the deepest experience which has given us one of the positions towards the Universe treated in the foregoing. The conviction that mankind will approach nearer to Truth in this way is not a rational one, it is not demonstrable; on the contrary, this confidence in Truth, this faith is in itself the basis on which all reason, all philosophy rests. *Magna est veritas*, *et prevalet*; that is the last supra-rational assumption which bears and guides all philosophy; it is the principle, too, which has to guide all research about the relation of religious truth and its metaphysical expression.

AN ALOGICAL ELEMENT IN THE PHILOSOPHY OF EDWARDS AND ITS FUNCTION IN HIS METAPHYSICS

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(*Oregon*)

THE reputation of Jonathan Edwards even among students of philosophy suffers from the uncritical application of labels to his philosophy. This general practice has been further aggravated in recent times by the popular sport of the public torture of Puritanism. Edwards is too commonly dismissed as a severe rationalist or else as a loose-twisted mystic. In point of fact he was neither. Fragmentary portions of his works may indeed be found to support either classification, but when taken as a whole his logical and metaphysical speculations constitute a system of unusual integrity and originality.

For more than a century after the death of Edwards in 1758 comments upon his work originated in a narrow theological or even ecclesiastical context. The effect of this treatment was to exaggerate the importance of his discussion of the freedom of the will and to obscure the metaphysical background of that discussion. From a philosophical point of view there are at least two of his works which have more primordial significance—*A Dissertation concerning the End for which God Created the World* and *A Dissertation concerning the Nature of True Virtue*. They are less controversial, and probably as a consequence they better reflect the creative genius of his mind. In these works we discover that the synthetic principle of his philosophy is ethico-aesthetic in essence. His undoubted idealism is seen to be more akin to Plato's than it is to Berkeley's. It is more deeply rooted in a metaphysical than it is in an epistemological theory.

His logic is kin to Locke's. Knowledge originates in experience, i. e. sensation and reflection. Edwards does not, however, fall into the naturalistic fallacy of confusing origin with validity. Truth is for him an ideal synthesis of empirical data. Hence knowledge involves *de facto* ideals of unity and system in the active mind and *ex hypothesi* an objective, over-individual world order as a co-relate of the ideal unity which our minds seek. This gives his logical writings a distinction in eighteenth-century thought. He was not betrayed into the kind of logical atomism which supposed that knowledge is constructed out of that which is not knowledge. He, on the contrary, realized that knowledge is one in its simplest as in its most complex structure. He might well have defended the proposition that all judgements are hypothetical.

The primitive certainty of knowledge seems to be based on intuition. By intuition he means immediate awareness. His natural illustrations of intuition are (1) sensation—telling about a sensation is not the same as having it—'as honey is sweet on the tongue'; (2) aesthetic appreciation—the beauty of form or comeliness of person or the symmetry and balance of a just man's life must be enjoyed to be known; (3) rational inference—the relation of judgements in implication must also be obtained by intuition. This is a familiar theory in philosophy and is often, if not usually, connected with a mechanistic or atomistic logic. But it is not so in Edwards's case. Sensation does not either alone or when combined with reflection and aesthetic intuition furnish the stuff or content of knowledge. Intuitions are rather distinguishable moments in the life of reason. Perception does not differ in kind from reason and inference but only in degree of complexity and fullness. An immediate intuition —'as honey is sweet on the tongue'—is connected within experience with other intuitions and inferences according to laws and processes structured into the nature of *being* itself.

Intuition, to be sure, does in a sense furnish the content of knowledge, but it is a content already formed and assimilated to the whole body of knowledge. The truth of an intuition is exhibited and constituted by coherence or consistency within experience. Edwards takes Locke's principle of consistency among ideas halfheartedly and substitutes consistency with existence. To put the matter in another way, consistency for Locke seems to be a formal doctrine because of the implicit cleavage between our ideas on the one hand and the world of things-in-themselves on the other. For Edwards, consistency is more nearly a methodological principle in the employment of which the mind grapples directly with the real. Edwards's position transforms though it does not banish the problem of the adequacy of our knowledge of reality. It transforms the problem by suggesting that any *de facto* or actual inconsistency is a token and promise of potential consistency. The postulate of understanding is an understandable reality, and Edwards sees this relation even more clearly than did Kant a half century later.

With a philosophical penetration little to be expected in one so young, Edwards was engaged from the first with the nature of Being itself. Being in general is necessary because one state of affairs can be supplanted only by another state of affairs, i.e. he finds determination at the base of reality. In this he resembles

Hegel or Spinoza more than he does Locke. No justification for existence is rightly called for but only a rationalization of a particular existence. He would say that the question, Why should there be anything whatever? is an irrational question because it destroys the possibility of an answer in the form of a question. Absolute necessity is the general determination within which all particular determination gets its meaning. For Edwards, therefore, the question of metaphysics is not, Why should there be anything at all? but, Why should things be as they are?

Any other statement of the metaphysical question lays philosophy open to the charge of irresponsibility and creates a cleavage between philosophy and science for which there is no healing. Why should things be as they are? is complex enough for the most ambitious mind. It immediately breaks up into two questions: What are they? and Why? Most philosophers confine themselves to the former; Edwards undertook to answer both. The first part of the question is answered by reason, science, or revelation—but the second part can be answered only by the divine light which reveals the beauty and goodness of the world.

We must first glance at Edwards's attempt to tell us what reality is. In this the spirit of philosophy is one with science, and Edwards proves himself to possess the mind of a scientist. The popular notion that the Puritan was unscientific can find no support in the study of the work of this great exponent of Puritanism. It is significant that Edwards died as a result of inoculation for smallpox when the practice was in its experimental stages. From early childhood to the day of his death Edwards worked confidently in the spirit of scientific discovery. If he faced the facts of life in the faith that they would prove to be rational he did no more than any eager scientist does, and he did face the facts. In the universal spirit of science he assumed a distinction between appearance and reality. This is the background of his idealism. The intelligible order is the real order.[1]

The world order which is thus an embodiment of intelligibility

[1] Many have supposed that Edwards got his idealism from Berkeley or from Samuel Johnson. But neither supposition has the least support in the record. We do not know that Edwards knew of Berkeley, although it is probable that he had some slight acquaintance. But even if he came to know Berkeley it is quite certain that he did not know him until after he had worked out the main arguments for his own idealism. Moreover, the two philosophers are close together only in their final position regarding the ideal structure of the material order. They are widely separated in temper, method, and the more general results of philosophical thinking. As for Samuel Johnson, we know that when Johnson was a tutor at Yale Edwards was with the group of dissenters at Wethersfield near Hartford and that Edwards had a positive objection

is not infinite; for it is the very substance of body to be ordered according to number, extension, and motion. To say that body is an expression of intelligibility is not to be confused with the notion that all bodies have the property of thought. Edwards denies the latter and affirms the former. In the case of finite human bodies thought is entangled in the body and 'is in the same place where the body is'. The laws of thought, however, are not the same as the laws of matter, but quite the contrary. Each realm has its own order peculiar to itself. Both are determinate features of reality subject to 'exactly established methods and laws'. The laws of logic are no more infinite and universal than the laws of physics. But in each case the *law* is a transcendent principle epitomizing or exhibiting reality.

It is therefore not strictly correct to say that Edwards held that to be is to be perceived. Rather he held that being and knowing are one in principle—namely, the principle of order. 'The existence of things that are not actually in created minds, consists only in power, or in the determination of God, that such and such ideas shall be raised in created minds, upon such conditions' (*The Mind*, § 36). The laws of thought and the laws of things are equally laws though not identical.

Edwards shared the widespread orthodoxy of his time regarding the unquestionable truth of the Bible. There is no evidence, however, that he entertained the hypothesis that 'revelation' and reason could ever be at odds. Whatever appearance of conflict there might be was only appearance and gave him no fear that the truths of revelation would prove to be irrational. In short he held that God's ways as revealed in the Scriptures and in nature were the ways of reason. There was no overplus of either beyond potential reason, although there was indisputably much beyond any actual, finite grasp.

It is at this point that there arises a novel feature of his philosophy. In a famous sermon published in 1734[1]—*A Divine and*

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to Johnson as early as 1719 when he was sixteen years old. (Cf. letter of Edwards to his sister Mary given in Dwights's *Memoirs of Jonathan Edwards*, Ch. II.) It is extremely improbable that Edwards is indebted to Johnson or to Berkeley for much assistance in constructing his philosophical system. The general resemblance between Edwards and Berkeley may be much more probably explained by the fact that both fed on Locke. This hypothesis is further strengthened by the fact that Edwards, following the clues given by Locke, anticipated several features of the critical philosophy of Kant.

[1] After the publication in 1865 (Grosart) of Edwards's *Treatise on Grace* it was suggested that this work marked a late departure in his thought from the severe rationalism of the *Freedom of Will*. It seems clear to me that the essence of the later work is already full fashioned in the sermon of 1734. Cf. Allen, A.V.G., *Jonathan Edwards* (1889).

Supernatural Light, Immediately Imparted to the Soul by the Spirit of God, Shown to be both a Scriptural and a Rational Doctrine—Edwards presents a theory unique in our history. The common protestant teaching is that the individual may communicate directly with God and that God will guide mortal man in times of doubt. This is essentially the theory of 'conscience' or the 'inner light' of John Woolman, but it is not what Edwards means. The 'divine and supernatural light' does not furnish items of knowledge to the mind but illuminates the mind and its objects as the sun illuminates the visible universe. It reveals reality to the eye of the soul as light reveals reality to the body's eye. He specifically warns us that it is not to be confused with conscience, nor imagination, nor inspiration of some new truth, nor with feeling. It is rather an immediate sense by which we enter into the fullness of reason. It is not, he says, 'a thing that belongs to reason', yet 'reason is necessary in order to it'. 'It is by reason', he says, 'that we become possessed of a notion of those doctrines that are the subject-matter of this divine light or knowledge.'

Two other aspects of this doctrine are significant. First, it is a kind of dynamic element in knowledge. The divine light does not increase knowledge in the ordinary sense of 'increase' but adorns, fructifies, and vitalizes it. Without the divine light knowledge is like a life without joy or a body without life. With it the finite mind can taste the 'beauty and sweetness' of the divine plan as honey is sweet on the tongue. It is a transforming power which makes the heart to glow with joyous understanding of the majesty and the beauty of God. Secondly, this divine light is the possession of those only who love and serve God. Such have this reward that the bare bones of a rational universe take on a form and loveliness not revealed to mere reason. A new beauty invests creation and the ugly is transformed by being lifted to the level of intelligible meaning.

The doctrine of the divine light linked Edwards's theory of knowledge with his metaphysics. Without the doctrine his logic would be an abstract form unrelated to existence and his metaphysics would be an equally bare abstraction. When the two are taken together united by the divine light the system is seen in its true nature as essentially ethico-aesthetic. There is no one to one correspondence between the moments of our thought and the moments of existence. Our thought is caught in the net of time and struggles in vain to complete its own cycle by adding line upon line. Being is the hypothetically complete junction of the actual and the possible.

How can the finite mind come to the measure of infinity? Edwards answers—Only in the presence of the divine light. The synthesis is not to be found in the understanding but in the ethico-aesthetic experience of the love of God. Edwards does not present this as the conclusion of an argument. It is not inferential, that is to say, it is no more a logical law than it is a physical law. Mind and matter are one in it, though it does not spring from either. The apprehension of the whole, like the apprehension of the lovely and the beautiful, is not inferential, but intuitive.

MUST BIOLOGICAL PROCESSES BE EITHER PURPOSIVE OR MECHANISTIC?

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1. THE antithesis of mechanism and purpose is out of date. As was shown by the British Association Symposium on the 'Nature of Life', at Cape Town (July 1929), the battleground in biology is shifting.

Evidences of this shift are:

(*a*) The substitution of the concept of the 'whole' for the concept of 'purpose': the battle is one of mechanism *v.* holism. Purpose is a psychological concept hard to dissociate from consciousness. Whole is a concept equally applicable to plant, animal, man; to living body and living mind.

(*b*) The biological protagonists, Hogben for mechanism, Haldane for holism, argued primarily on methodological, not on metaphysical, grounds. The crucial question was: What is the most profitable technique of investigation in biology? In terms of what concepts are biological problems best asked and answered? Hence, it is important to distinguish, on the one side, between mechanism as a methodological point of view and mechanism as a metaphysic (= materialism), and, on the other side, between holism as a methodological point of view and holism as a metaphysic.

Taking this distinction for granted, the question asked, viz. 'Must biological processes be either purposive or mechanistic?' should receive the answer, '*Biological processes must be holistically conceived, in order to be mechanistically studied.*'

2. As an illustration, in passing, of the above-mentioned shift, attention may be drawn to the fact that the successes of biochemists in the laboratory-synthesis of organic compounds have lost their old theoretical point. Once upon a time they were important as disproving the contention that the artificial synthesis of such compounds is impossible. Nowadays, as Professor E. C. C. Baly, F.R.S., pointed out at Cape Town, the theoretical interest of these experiments is rather that they achieve their results by 'molecular torture', not by 'the marvellous simplicity' of the procedures in plant- and animal-body. Baly also pointed out that the artificial compound sometimes lacks some of the qualities of

the natural product; and that laboratory experiments at present are not yet able to employ energy quantities of a higher order than 30,000 calories per gram molecule, whereas in the photo-synthesis of carbo-hydrates from carbonic acid in plants the energy quantities involved run into hundreds of thousands of calories per gram molecule. The theoretical bearing of these considerations is not, of course, that mechanism here breaks down in principle, for no one can predict what energy quantities the experimenter of the future may not be able to handle. The point now is simply that mechanism is very far as yet, even on its own principles, from the achievement of its programme. The deeper issue of the sufficiency of these principles themselves is not touched by such considerations at all.

3. Mechanism as a point of view and technique of investigation may be interpreted in a wider, more general, and in a narrower, more specific, way.

These two interpretations are not always distinguished sufficiently by mechanists themselves.

(*a*) In the more general sense, mechanism is one with, and had better be called, 'scientific determinism', or, for laboratory purposes, 'experimental determinism'. Its essence is to assume an Order of Nature within which phenomena are related by law, so that concerning any phenomenon the question can be asked, What precisely are the conditions which determine its occurrence? The favourite watchwords of mechanism, e.g. quantitative analysis, prediction, verification, belong to the technique of discovering the determining conditions of the phenomenon, i.e. formulating the laws which explain it.

(*b*) In the narrower sense, mechanism means the interpretation of biological phenomena in physico-chemical terms, on the plea that this is the only way of applying the principles of mechanism in the wider sense. In practice, this means that the 'mechanistic' biologist employs, according to his need, the concepts of physics, of bio-chemistry, and of behaviourism; and that he avoids, as 'unscientific', all psychological concepts.

Mechanism in the former sense is sound and essential to all science. Mechanism in the latter sense is unsound, for

(1) Generally, the principle of scientific determinism does not limit itself to the concepts of any one science, or to phenomena of any one kind, but leaves science free to establish for each kind of phenomenon its own appropriate concepts and laws, and

(2) specifically in biology, though behaviourism is a convenient

point of view in studying the behaviour of organisms incapable of introspective self-analysis, there is no justification for avoiding, in principle and in the name of 'science', the use of 'mental' concepts in the interpretation of human behaviour. No study of conditioned reflexes disposes of minds as actual existents or makes their self-observation superfluous for or irrelevant to science.

4. As regards the concept of 'whole', mechanists claim to have no use for it, because (*a*) it suggests no profitable line of research; (*b*) a whole is interpretable only by reference to the properties of its parts.

The answer to this is, first, that the position taken up in (*b*) implies an acknowledgement and recognition of the whole as the phenomenon to be explained, the details (or 'parts') having no theoretical interest or relevance except as bearing on, and made significant by, the pattern of the whole. And, secondly, that in biology the phenomena which exhibit wholeness (integration, co-ordination, maintenance of normal structure, regulation, function, &c.) set the problems for profitable investigation.

5. This is, precisely, the holistic position in biology, viz. that without the guidance of the concept of the living being as a self-maintaining whole, the study of the phenomena of life by the principle of mechanism, in the sense of scientific determinism, loses itself in a 'maze of quite uninteresting obscurities' (Haldane's phrase).

Illustrations of this position from the work of Haldane and other biologists lead to the conclusion that, whilst mechanism in the narrower sense and holism are incompatible, mechanism in the wider sense and holism are compatible, and in biology complementary. The holistic point of view is necessary for the recognition and definition of the characteristic life-phenomena to be explained, the mechanistic in the general sense for the detailed analysis of the conditions under which the former occur.

6. Holism as a metaphysic is the theory that the Universe is an evolving Universe; that at every level of its evolution it expresses itself in wholes; and that at each 'higher' level these wholes exhibit new emergent qualities in which the creativity of the Universe displays itself. This theory (*a*) is not logically necessary to holism in biology, the latter being a premise for metaphysical holism, not *vice versa*; (*b*) can give an account of the difference between living and non-living wholes only by means of the concept of emergent qualities, which concept involves the logical difficulty of getting something out of nothing, of consequents appearing in the Universe for which there are no sufficient grounds.

HISTORY WITHOUT EVOLUTION

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IN the past century hardly any distinction was drawn between history and evolution, between what can be read out of the documents and the process of a steady change of nature. The theories of evolution—Hegel and the Hegelians, Spencer, Darwin, Marx, &c.—see in everything a mere stage in the process of development: what else is man than a stage in the development from the ape to the superman? Is not metaphysics only a stage in the evolution from theology towards positivism? Even the whole of nature and culture together have been looked upon as only a phase in the evolution of the Absolute Spirit.

The evolutionistic approach to history has not, however, suppressed the conviction, inherited from the rationalistic period hostile to history, that at least the metaphysical basis of reality, natural and spiritual, is deeper-rooted than any history. The real roots of reality have been sought in matter, energy, laws of nature, spirit, idea, psychology, or, at the utmost, with Hegel, evolution itself was the metaphysical cause of phenomena. History was under such conditions, a part of nature, an epiphenomenon only of physical and chemical changes, of psychological processes, of social conditions, of the logic of development.

The philosopher should not be satisfied with this subordinate meaning of history; for philosophy and history are so closely allied that prejudice against one of them hurts also the other. Efforts have therefore been made to make history independent of the naturalistic viewpoint, the most prominent attempt being the idea of H. Rickert that the history of civilization is the history of the evaluation of given facts. The so-called values are no direct product of nature; in reality they do not exist; only human beings, and in the first place historians when depicting the events of the past, have need of such values as are 'state', 'religion', 'science', 'morality', 'economy', 'war', &c. Men in the past have evaluated events through such terms, history refers to this evaluation and judges by them the events. The values become therefore for the historian given facts, he finds them in the past in the same way as the geologist finds petrefactions. The historian states the existence of the values; he himself should be no judge of the past and has only to tell neutrally how people have judged themselves at a given period. Though the values are not direct products of nature they are constructed after the fashion of natural objects produced by the outside world. In this way Rickert's philosophy of history is a compromise between the evolutionistic and historical viewpoints.

This compromise has been rejected by some eminent philosophers, by H. Driesch, &c. What will be the result if we throw aside the compromise and push the difference between history and nature to its logical conclusion?

History is then a reality of a particular kind; it is more than a manifoldedness in time, more than a natural process, i.e. more than a series of changes under the influence of the laws of nature, it is also more than a mere story about the human evaluation of events. History is a reality of the intellectual world; it is equally as fundamental for philosophy and epistemology as nature. The most important thing is then that history and civilization which is a product of history cannot be reduced to nature. A few hints only in this direction can be produced here.

1. *Evolution.* The inanimate objects of nature, e.g. the chemical combinations, rocks, stars, are not bound to a concrete date and can be transposed into any time. The growth of a crystal of salt takes time; but whenever there are conditions favourable for its growth, it will arise to-day exactly as centuries ago. Silurian salt crystals have no influence upon those of later times; they have always been cubic, and variations, if they ever occur, depend on accidental conditions only. It is impossible to write a history of the earth or the solar system for the same reason: Kant and Laplace tell us only how the solar system has crystallized, a process which could have happened at any time. Given a chaos, there will always arise a solar system, and there is no reason why it should arise just in this aeon or in any other. The theory of eternal reiteration of all things is the consequence of such an hypothesis, a theory which is in principle opposed to history.

There have existed theories about organisms as manifestations of unchangeable laws of nature, or as arising in a purely natural process. Such is the theory that there are as many species of living beings to-day as were created in the beginning by God; or the theory that organisms are complicated chemical combinations. In such a case organisms are analogous to crystals and can be, at least in theory, artificially prepared. In theory it would then be possible to prepare an homunculus in a laboratory as one creates a salt crystal. For such an origin of organisms history has no meaning; also if the process of the crystallization of such an organism be very slow and take millions of years it would not differ from a mere succession of physical changes.

2. *Events.* For history the fact of 'events' is fundamental. An event is something which has happened and cannot be undone; an island thrown up in the stream of eternal processes and standing there fast; a landmark which must be taken into account and to which everything must be referred. That Plato lived, that Christ died, such events are not only stages, phases, points of transition in the evolution of the world; they are centres, nails, upon which history hangs. While in evolution time is only a means of measuring the length of the process, in history every event is connected with a date. Inanimate nature does not know dates, no theory of evolution respects any dates, and yet there is no history without them.

Events and dates do not refer primarily to changes, to processes. They refer to something which has happened and this is always an idea, something, which can be understood but cannot be grasped by the sensual organs. Take the discovery of the proposition of Pythagoras, of gravitation, the Middle Ages, the World War. The chief point for the historian is not that they have developed, not the *panta rei*, but the content, the meaning of what has happened: the true sense of Pythagoras' proposition, the real meaning of the theory of gravitation, this thing which men should think about when they speak about the World War. These historical events cannot be demonstrated to our senses, they can however, be, understood, as we understand people who are speaking with us. Natural objects can be described from the surface to the centre, can be seen and felt by any one; the proposition of Pythagoras, however, exists only for those who understand it. In such a case we do not go from the surface to the core, but from the substance to the accidents; at first we understand only the principle and go later on to the details. An inhabitant from another planet could, perhaps! state the physical fact of gravitation; perhaps he could grasp the changes of nature, connected with the World War; but if he does not understand what was in the mind of Newton when he discovered gravitation, if he does not from the beginning understand the meaning of the war, he cannot understand these events. Such an understanding is the necessary basis of all historical events: they can be understood only as a language is understood.

3. *History is discontinuous.* The term 'evolution' provokes the idea introduced into biology by A. Weismann: that one generation of men sprang out of another and that there is no discontinuity in their germ plasm; in such a case there is surely a continuous evolution—of matter and motion. This continuity does not, however, interest the historian. He aims just at that which is discontinuous in the history of mankind: not the protoplasm unchanging through ages, but here an Alexander the Great, a warrior, there a Dante, a poet, here Descartes, the philosopher. The impression of continuity arises in the mind of an onlooker only who does not or will not understand. In such a case the phenomena run before our drowsy eyes and mix together into one continuous stream; as soon, however, as we wake up we fix concrete men, events, ideas.

4. *The past in history is a necessary foundation of present events*, while in nature the past has no constructive influence. Prof. H. Driesch has pointed already to the importance of what he calls 'the historical basis of reacting' as characteristic of vital processes; this historical basis is the most important in every history. Take for example language, the most typical instrument of the intellectual life. There is no 'natural language', i.e. a language constructed directly out of the laws of nature: without the language of our forefathers there could be no language of the present; if we would not learn the words, phrases, accents from our parents, mates, teachers, we could not understand. In this way language is necessarily founded upon history. In the same way every event of history is founded upon the events of the past: without the past there is no social life, no poetry, no science, no philosophy. Science, literature, philosophy, all elements of civilization are therefore nothing natural, nothing inherent in the nature of things or of the mind; at the very root of them there lies the past as indispensable for their present existence. History is the very bone and flesh of the spirit; no idea can enter into consciousness if it has no previous idea to rely upon.

5. In history, in contrast to nature, the present and the past are not connected together by evolution but by the free act of a man who chooses in the past suitable ideas according to his needs. The identification of history and evolution has arisen out of the positivistic philosophy which looks upon phenomena only from the outside. The positivist describes wars, statesmen, writers, their works, scientists and systems of philosophy as the biologist describes a caterpillar spinning its cocoon, as if he would see them only in a dream. Here lies the proton pseudos of evolutionistic

history: the personalities of history and their deeds, the epochs and movements, are no mere objects of nature: they are responsible men and undertakings of responsible men, they appeal to our approval or protest; who cannot understand them, cannot write their history. It is impossible to tell the story of Galileo and the inquisition without believing in the correctness of Galileo's theory and without the intention to support Galileo against the inquisition. Every historical personality and every epoch turns naturally to the past to explain, support, justify their deeds; it does not only grow out of it, does not only follow it, but accepts or refuses to accept it; Christ naturally sought the support of the Old Testament; the newer his doctrine was, the greater was his effort to refer to the past and to show that he fulfils only what the prophets had preached. Plato and Aristotle discussed naturally the theories of their predecessors. Galileo referred to Democritus, the Renaissance taught the return towards the antique, Descartes and Hobbes relied upon Galileo and the presocratic philosophy. No evolution from the past, but an appeal to the past!

This appeal to the past is no secondary quality of a new idea, it cannot be explained by usefulness or by any other mere practical consideration, and it is no mere continuation of the past on a higher level. A man chooses freely from the past the proofs of his new truth; he lives for his new, unique, independent truth only; but just this present truth turns his head towards the past to find there ideas similar to those of his own, to be conscious that he is not alone with his new doctrine. His appeal to the past, therefore, does not lessen the responsibility of the man, does not curtail the freedom of will. It is the man who makes the history which is then no mere evolution: the centre of history is always in the now and here: the past is no master of the present; it gets its life from the present; the past is connected with the present by the free choice of man seeking the truth and not by accidental conditions of nature.

In this sense history is a steady creation, as Bergson has taught us to seek creation in life. A splendid idea! But Bergson also succumbed to evolutionism; his *élan vital*, whatever it be, is a force of nature only. It is something which can perhaps, be inwardly experienced, as we experience the toothache, but is, nevertheless, extraneous to the intellectual life, where are made decisions of free men. The *élan vital* is too dumb, too biological; Bergson's philosophy is full of discussions about changes, about evolution, about passages from one state to another. How small a part is played in his philosophy by history, especially the history of civilization, of literature, science, politics! Bergson holds too much to the naturalistic speculations of the past century, speculations about the evolution of plants and animals, the origin of life, the difference between understanding and instinct. The objects of nature are not, however, the proper subject for the study of history, they cannot be understood, they do not appeal to our conscience. The plenitude of history is shown only in the life of civilization; the development of life shows at the most, unclear hints of it only.

Civilization has its own metaphysical basis, it cannot be reduced to the evolution of nature; its foundations lie in history. The substance of history lies in events, brought about by responsible men, events provoking our intellectual and moral judgement, our sympathy and antipathy. The philosophical meaning of history does not lie in the development of the ideas of our forerunners; it arises where a free and responsible man relies upon the past to prove his new idea. Civilization is no mere outgrowth of nature, no positivistic stage of evolution of the world, no Spenglerian object of nature, analogous to the trees and rocks; civilization is an existence *sui generis*, of which history is such a core as is the atom or electron the last element of nature. If this conception of history and of civilization is true then the question arises how to explain the dualism of nature and history. It is an old problem; the same problem as the dualism of nature and spirit. If nature is not the metaphysical basis of history—is not history itself deeper rooted than nature? Then nature itself would be a free deed or a series of free deeds of a responsible being. If we try to follow to the end the consequences of the doctrine that history is a sphere of the free activity of responsible beings the old idea arises anew as a possibility that 'In the beginning God created the heaven and the earth'.

AXIOLOGY AND PESSIMISM

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IN recent years discussions of the nature and status of judgements of value have more and more come to the front not only in the fields of religion and ethics, aesthetics, and sociology, but also in those of logic and metaphysics. The inseparableness of fact judgements and value judgements, if not the primacy of the latter over the former, has been declared by pragmatists and idealists. Idealists have upheld the objectivity and universal validity of the judgements of value, whereas realists, for the most part, have not allowed them any more than subjective and provate significance, except perhaps that they have acknowledged a certain social universality in recognition of actual agreement in such judgements within human groups. That these divergencies of point of view have far-reaching consequences in all fields of human interest cannot be denied. It is my intention, however, in this paper to explore what significance these divergencies might have for pessimism.

Pessimism, as is well known, is itself a judgement of value, which, however, is not primary or simple, but is rather a derivative or a resultant of a truceless conflict between man's supreme value and what he regards as the hostile facts of life. Now, it is clear that conflicts are resolvable by the yielding in part or altogether of one or the other or both of the clashing adversaries. Approaching the problem of pessimism naïvely, without a knowledge of the divergencies inherent in various theories of the value-judgement, the student of pessimism might assume that the values of man and the facts of existence could be treated separately and that, if either of them were somehow made to change, pessimism would easily disappear. But once the ramifications of the value problem have been recognized, greater complexity enters and the divergencies of interpretation are seen to have an interesting and important bearing on the nature of pessimism and any possible hope of overcoming it.

Idealists seem to feel that any view of values which regards them as mere psychological addenda to any existent thing and does not acknowledge their objective validity, leads thought into great theoretical difficulties and involves the thinker in inevitable pessimism. Professor Urban, for instance, the most prominent American defender of the objective point of view, devotes considerable space in his recent book[1] to a description and a refutation of 'modernism' or of the point of view of the 'minute philosophers', who, he feels, are, in their attitude toward value as merely psychological and subjective, reducing the meaning of life to insignificance. But if life has no meaning, pessimism would seem to be the inevitable outcome. The objectivists are no doubt right in contending that the great philosophers of the past from Plato onward would certainly have agreed with this conclusion.

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[1] W. M. Urban, *The Intelligible World*, 1929.

But let us consider the subjectivist's point of view with regard to the nature of value. Does his position inevitably tend to pessimism? According to him, any object whatsoever may become clothed with interest and, therefore, with value. Professor Perry, for example, the most outstanding defender of the subjectivist point of view in America, defines value 'as the peculiar relation between *any* interest and its object'.[1] According to the subjectivist, value is not inherent in the object evaluated, but is an addendum attached by the valuing subject to the object in question. 'That which is an object of interest is *eo ipso* invested with value. Any object, *whatever it be*, acquires value when any interest, *whatever it be*, is taken in it; just as anything whatsoever becomes a target when any one whosoever aims at it.'[2] Now, curiously enough, from this standpoint, so far from pessimism becoming inevitable, it would rather seem impossible as a persistent philosophical attitude; for would it not appear as if on this interpretation it would simply be a matter of willing, a mere shrug of the shoulder, perhaps with the familiar French expression, 'tant pis', and man's disappointment at not receiving that which he had clothed with value would give way to quick indifference and a new investiture of value? At any rate, disappointment could scarcely be bitter or long drawn out. If there is persistent pessimism here, the psychiatrists would be the persons who ought to take over the therapy of such a pessimist. The problem, in other words, would be a psychiatric and not a philosophic problem. We are told often enough as it is that pessimism is pathological, and that there is simply a certain physiological and mental regimen to be followed in order to cure it. If anything whatsoever may be clothed with value, then the normal person, it would seem, can easily de-frock a past value and re-clothe a new one. Cosmic pessimism of a deep-going nature is therefore so far from being inevitable on this interpretation, that it rather becomes impossible and we can readily understand the impatience of subjectivists with pessimism and with the charge that they are to be held responsible for it.

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[1] R. B. Perry, *General Theory of Value*, 1926, p. 124. (Italics mine.)

[2] Perry, op. cit., p. 115. (English italics mine.)

Now, on the other hand, let us consider the objectivist point of view. Does it effectively insure man against pessimism? From this standpoint, it will be remembered, value is not at all essentially a matter of subjective judgement. While *some* objectivists would agree that without a subject of some kind there would be no value, and though *all* agree that human subjects do indeed judge in value judgements, idealists, for the most part, maintain that such judgements are an *acknowledgement* (anerkennen) of value and not a creation or imparting of a value which before was not there. Following Plato they would say, no doubt, that as there is a certain affinity between the light and the eye, and between the ideas and the lover of them, so here there must be postulated an affinity between the value and the acknowledger of it. But no more than Plato regarded the eye as the creator of light, or the philosopher as the creator of ideas, would the objectivist regard the individual or the subject as creating or imparting the value.

The consequences of this point of view for pessimism become interesting. A subject acknowledges the objective existence of value or (if 'existence' be too Procrustean a word for value) the objective *reality* of value. The same stubbornness and independence that the realist usually ascribes to the factual world now is found by the idealist in the realm of values. In consequence for him it is not so easy to shift from one value to another. Should frustration confront his ideal, should the world of facts prove inhospitable to his values, be they never so 'valid', will not pessimism emerge like an evil genius in the world of his conceiving? True, he can shut his eyes to what he hitherto had prized, but since he had prized something eternally worthy of his esteem he cannot easily shift his allegiance; and escape from pessimism by a shrug of the shoulders is now impossible. It may still, of course, be asked, How may the idealistic pessimist be sure that his value is indeed eternally worthy of his loyalty? Just as the absolute idealist, in the field of epistemology, must freely acknowledge that, even on his postulate of Truth as absolute, man must usually content himself with simple truths which fall short of absolute validity, so in the field of values he must acknowledge that the judging individual may be involved in error and may give his devotion to false and meretricious ends. So even here a certain subjective viewpoint becomes admissible, no doubt, and some escape from pessimism by way of subjectivism is at least a possibility, since the pessimist may have, to begin with, not clearly seen where truth and beauty lie. In the Republic, for instance, Plato proposes a magnificent and inspiring system of education, the chief purpose of which is to turn the eyes of those who can see from the shadows that are unworthy of man's interest to the glories that are there, but have so far not been attended to. But what happens when a man has been rightly schooled and so needs must love the best once he has seen it and then finds his values dishonoured by the world of facts? What others call his dreams he finds he needs to live by, and brute reality seems indifferent to his ardours, if indeed it does not jeer. True, in Promethean defiance man may shout forth his everlasting yea and remain loyal to his values though the heavens fall. But, it must be admitted, I think, that this heroic gesture, though it may prove *man's* nobility in face of disaster, would prove the world to be the worst possible of all worlds. The point I have been trying to make is that the pessimism of an idealist is a serious matter, far more serious than that of a subjectivist ever could be.

We seem to have reached a curious conclusion. The objectivist began by accusing the subjectivist of luring his followers to the destruction of pessimism. But accepting the position of the subjectivist we find that pathological, and not philosophical pessimism, is alone possible. On the other hand, on the objectivist theory, pessimism seems far more formidable, far less likely to yield easily, since so little amenable to subjective manipulation. It seems that the objectivist's charge has turned against himself. And yet, perhaps, there is a way out whereby pessimism can be overcome in principle by the objectivist, and his charge against the subjectivist be vindicated as well, at least in part.

Pessimism, paradoxically enough, is overcome by the objectivist by denying it the right of existence in the world he lives in. How can there be a conflict *à outrance* between the ideal and real when, to speak with Spinoza, reality and perfection are used as synonymous terms? (*Ethics*, Part II, Def. vi). Any one who has read the great masters of idealistic philosophy must realize that Plato and Aristotle, Spinoza, and Leibniz, have, for all their diversities, agreed in this, that the most perfect is the most real. The ontological argument for the existence of God takes on a new interest in this connexion. Though even before the days of Kant it was devastatingly assailed, it has nevertheless been defended, in one way or another, by many idealists. The reason for this should now be clear. Whatever else the ontological argument may be, it is a magnificent affirmation of faith which believes, in spite of appearances, that reality and perfection, so far from being in constant conflict with each other, are as a matter of fact, in the last resort, identical.

'God alone', says Hegel, 'is the thorough harmony of notion and reality', that is, the highest value is at the same time completely fulfilled in actual reality. It is not from personal whim, but in keeping with his pessimistic theory, that Schopenhauer repudiates the ontological argument and that he should call it nothing but 'sophistical juggling of concepts without any convincing force whatsoever'.[1] Had Schopenhauer been able to accept the ontological argument he could not have been a pessimist.

In conclusion, let us see how the charge of being a persuader to pessimism, made against the subjectivist, may be at least in part substantiated. The objectivist, *retaining his fundamental attitude*, would have to be a pessimist if he accepted a part, but a part only, of the subjectivist doctrine, that is, if he, looking for solid anchorage in values of universal objectivity, were obliged to renounce such a quest and try to content himself with what he would regard as the shifting sands of private caprice. A world in which his values are nothing but *his* values would be a world that 'had lost its soul of loveliness', to use the words of the great English scientist, Romanes, when science fresh from its great victories in the field of evolution seemed to rob him of what before he had held so dear. Persistently loyal to his values and finding not only their realization denied in an inhospitable world but also their eternal worth impugned, the objectivist could scarcely be other than a pessimist. Taking a 'high view of values' he could not escape by taking a 'low view' of them.

But, on the other hand, the objectivist would not be a pessimist, and the charge of making men pessimists could not be sustained against the subjectivist, if the objectivist could bring himself to accept, not a part, as before, but *all* of the subjectivist doctrine, i.e. if he would be able of his own free choice to regard objective values as projections of human desires which a clear-visioned and grown-up man would be glad to discard. Contrariwise, to revert to the counter-charge that objectivists may make pessimists, it does seem true that on the objective theory one might become a pessimist of a serious and persistent kind if one accepted, in this case, too, only a *part* of the theory, that is, if reality actually could clash with ideals acknowledged and not created. But, again, as before in the case of the objectivist, one could not be a pessimist if one accepted *all* his theory, that is, if one could actually believe that in the world, as now constituted, reality and value, particularly the highest reality and the highest value, were one. It is almost too much to ask of the objectivist as well as of the subjectivist to accept *all* the doctrine of the other, for such a demand would turn the objectivist into a thoroughgoing subjectivist, and the subjectivist into a thorough-going objectivist. But to the student of pessimism and of the theories of value we conclude with a warning: Do not accept but half of the message of either of these prophets! By our whole-heartedness we shall be saved from pessimism!

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[1] *W. als. W. Kr.d.K.Phil.* 'jener ontologische Beweis nichts ist als ein spitzfindiges Spiel mit Begriffen, ohne alle Ueberzeugungskraft'.

LE CINQUIÈME GENRE DE L'ÊTRE DANS *PHILÈBE*

LÉON ROBIN

(*Sorbonne*)

DANS deux dialogues de sa vieillesse, le *Sophiste* et *Philèbe*, Platon a dénombré les genres de l'Être. Le point de vue de ces deux classifications est, je crois, différent: d'où l'échec de toutes les tentatives, depuis l'Antiquité, pour les faire coïncider. En tout cas, c'est une singularité du *Philèbe* que, comptant cinq genres comme le *Sophiste*, il en envisage seulement quatre.

Il s'agit (23 b–d) de diviser les existences contenues 'dans le Tout'. Successivement, Socrate en reconnaît quatre espèces: l'infini, le fini, le mélange des deux, la cause du mélange. 'Est-ce que, cela posé, dit alors Protarque, tu n'auras pas besoin d'une cinquième espèce, dont la *fonction* soit d'opérer une séparation (διάκρισιν . . . δυναμένου)?' A quoi Socrate répond: 'C'est fort possible; non bien sûr présentement; du moins je le crois. Mais, si c'est nécessaire, tu me concéderas le droit de me mettre en quête d'une cinquième.' De fait, il n'en est plus question. C'est, disent les uns, une fausse fenêtre, pour garder la symétrie avec le *Sophiste*; une satisfaction donnée au symbolisme arithmologique, selon d'autres. D'ailleurs, observe-t-on, puisque la question est de savoir quel *mélange* constituera la vie heureuse, la décomposition de ce mélange n'intéresse pas *présentement* le débat. Il reste cependant que l'espèce διάκρισις n'a été exclue par Socrate que provisoirement. C'est donc, peut-être, un problème de savoir si elle n'a pas une place cachée, dans le *Philèbe* même.

Rappelons préalablement quelques traits du *Sophiste* et du *Politique*. D'abord, ils donnent dans la dialectique, après le *Phèdre*, une importance toute nouvelle à la méthode de division. Ensuite, le *Politique* dégage spécialement l'idée d'une *métrétique*, qui fixera la juste mesure, également opposée et à l'excès et au défaut. Or ce sont eux qui caractérisent le devenir proprement dit, ὄντως γιγνόμενον, tandis que l'apparition de la juste mesure donne aux choses qui deviennent la perfection de leur nature (283 c–284 d); les allusions formelles au *Sophiste* (284 b, 286 b) suggèrent que celle-ci consiste en une relation, exactement mesurée, d'être et de non-être. De plus, bien que le morceau concerne explicitement les arts, et surtout celui de parler, il semble que cette *métrétique* supérieure vise finalement des objets plus relevés. En pratiquant la méthode de division sur des cas familiers et concrets, le but n'est-il pas en effet de nous rendre, en général, plus habiles dialecticiens? Sans cet exercice préparatoire nous ne pourrions atteindre certains objets, qui sont 'les choses incorporelles', accessibles 'à la pensée seule', et pour lesquels de tels exemples ne sont plus de mise (285 c–286 b). Notons enfin cette déclaration (284 b): la présente étude de la mesure, '*un jour* nous en aurons besoin pour une démonstration concernant *l'essence même de l'exactitude* (αὐτὸ τἀκριβές)'.

Or le *Philèbe* contient, peut-être, au moins un reflet d'une étude de ce genre. Sans doute, l'objet qu'il se propose, constituer selon la juste mesure le mélange qui doit faire le bonheur de *notre* vie; sans doute, tant d'exemples empruntés à l'expérience sensible, peuvent faire penser qu'il se limite à ce domaine. Mais ce n'est qu'une apparence, à laquelle conviennent les avertissements du *Politique*. Considérons d'ailleurs le morceau (15 d–17 a) dans lequel Platon explique la nécessité de compter, de spécifier et d'ordonner tous les intermédiaires entre le fini et l'infini : cette description de la méthode de division en éclaire remarquablement la nature; on y voit en effet qu'elle consiste à reproduire dans la pensée le processus de la composition d'une *essence*, à déterminer quelles essences sont exigées par sa constitution, ou, en d'autres termes, quels simples, en quel nombre et dans quel ordre, sont les simples de tel complexe. Ainsi, la mesure est introduite dans la spécification, et la qualité soumise à une mathématique supérieure. Enfin, si l'esprit procède de la sorte, par degrés dénombrés, du fini à l'infini, c'est qu'il établit entre les essences une hiérarchie.

Cette idée de hiérarchie s'affirme précisément dans la classification des diverses espèces de plaisirs (31 d sqq.) et dans celle des diverses sciences ou disciplines techniques (55 c sqq.). Or, on le voit surtout dans cette dernière, c'est le degré d'*exactitude* (ἀκρίβεια) qui règle la hiérarchie. Au plus haut degré est la dialectique, comme plus exacte que ne le sont elles-mêmes la science des nombres et celle des mesures, qui pourtant, au moins dans leur usage philosophique, l'emportent sur toutes les autres pour l'exactitude. Il y a toutefois ici une difficulté apparente: l'exactitude supérieure de la dialectique vient en effet (59 c; cf. 58 a) de ce que ses objets, gardant immuablement les mêmes rapports et étant 'ce qu'il y a *de plus exempt de mélange*', lui confèrent stabilité, pureté, intégrité. Est-on, dès lors, fondé à parler de la *composition* des essences? Mais l'expression se justifie: un peu plus haut (58 c d), en effet, l'objet si parfaitement exact de la dialectique a été comparé à la pureté absolue d'un blanc qui n'est mêlé d'aucune autre couleur, comme on dit d'un plaisir qu'il est pur quand il n'est pas mêlé de douleur (cf. 53 a b). De même dans le *Timée* 57 c: les soi-disant éléments sont vraiment les 'syllabes' des choses, on en a expliqué la composition, et néanmoins ils sont appelés 'sans mélange et premiers'. De telles expressions concernent seulement un degré *relatif* d'exactitude: ce qui distingue des mixtes sensibles les mixtes intelligibles (le Bien excepté, comme on verra), c'est l'exactitude supérieure du mélange qui s'y fait de l'infini avec le fini. Au surplus, si l'on rejette cette interprétation, comment expliquera-t-on que la vie mixte vaille mieux qu'une vie sans mélange? que, après avoir appelé les objets de la dialectique 'les plus exempts de mélange', Platon puisse y ajouter 'ce qui est *au plus haut point apparenté* à ces objets', et dire enfin que 'tout le reste est de second rang, et en arrière'? Autrement dit, les mélanges sont de moins en moins exacts, à mesure qu'on s'éloigne de ceux qui le sont le plus; ces derniers ressortissent à la dialectique, les suivants à la science, ceux du dernier rang à l'expérience sensible. Il y a donc une hiérarchie dans l'exactitude et, par conséquent, des *rangs* à assigner.

C'est ce que prouveraient, je crois, les considérations sur lesquelles s'achève le *Philèbe* (61 a sqq.) et qui sont expressément rattachées à celles qui précèdent. Le problème est alors de nouveau généralisé, comme il l'avait été 28 d–30 d: le mélange envisagé n'est pas celui seulement qui constitue le bien de l'homme, mais aussi le bien du Tout; ce qui a été dit sur le mélange représente même la 'fabrication' (cf. 59 e: δημιουργός) d'un certain arrangement *incorporel* qui doit commander à un corps *animé*' (64 a b). Si cette dernière expression ne concernait pas, au-delà de l'homme, au-delà du monde visible, le monde intelligible lui-même, on s'expliquerait mal que Socrate pût se flatter d'être ainsi parvenu jusqu'au vestibule de la demeure où se cache le Bien; car celui-ci, on le sait, n'est connu que dans des empreintes ou images (τύποι) de sa réalité et de son action. Un premier groupe comprend mesure et proportion d'abord, d'où dépendent ensuite beauté et excellence, cette dernière ne pouvant enfin exister sans la vérité, sans la cohérence, dans la pensée, des éléments assemblés. Une seconde hiérarchie apparaît alors, ternaire également, dont les deux premiers degrés manifestent des facteurs de liaison: d'abord tout ce qui est du ressort de l'âme, les sciences, les arts, les opinions droites, bref des intermédiaires entre le sensible et l'intelligible, entre l'expérience et l'intuition pure, entre ignorer et savoir; puis les plaisirs purs, unissant certaines sensations capables de les produire aux sciences dont ils sont l'apanage (51 b–52 b). Le sixième et dernier degré de cette hiérarchie annonce donc pour les 'générations du Bien' le commencement de la déchéance; car nous voici dès lors en face du domaine de l'Infini, dans lequel iront s'abîmer (cf. 16 e, 28 a) chacun des ensembles dont on a jusqu'ici spécifié la composition et le rang. Or, l'idée que ce morceau finit par mettre en son plein jour, c'est celle d'une compétition en vue d'un classement hiérarchique et de prix à décerner, idée qui s'exprime par le mot *κρίσις* ou par des termes connexes (22 c–e, 52 e, 55 c, 64 d, 65 a b, 66 c, 67 a). Après quoi, le dialogue s'achève brusquement: il reste encore, dit Protarque, *une petite chose* à examiner; si Socrate se dérobe, on lui rappellera *ce qui a été laissé de côté*.

Quelle est donc, dans le débat, la chose qui a été laissée de côté? N'est-ce pas justement le cinquième genre, la *διάκρισις*? La *μῖξις* a été définie (26 d, 27 b) le processus (*γένεσις*) en vertu duquel se fait ce que volontiers on appellerait *le montage* d'une essence (*οὐσία*) par l'effet de mesures définies. Or c'est à quoi, en dépit de son nom, correspond la méthode de division. Ainsi, dans le *Sophiste*, elle a permis, à propos de l'essence de 'pêche à la ligne', de retracer la série des intermédiaires qui rattachent cette essence complexe à l'intuition simple qu'elle est un 'art': épreuve de l'intuition par une synthèse ontologique progressive. La *διάκρισις* ne serait-elle pas le procédé inverse, la vérification de cette épreuve? L'ordre de la composition a pu être mal observé et tel élément placé hors de son rang. Or, si nous considérons la démarche du *Philèbe* dans l'examen auquel il soumet tour à tour le plaisir et la sagesse, nous voyons en effet que, au lieu de procéder du simple au complexe, cette démarche est une régression graduelle, un *démontage* du complexe, ou, plus exactement (comme le prouvent les exemples du chant et de la parole), de l'unité confuse d'un 'infini': la vie, soit de plaisir, soit de sagesse, conçue sans mesure et sans ordre, étant justement sans mélange (début et 17 b–21 a). Dans cette unité confuse on distinguera des éléments, et à chacun d'eux on demandera ses titres à occuper *le rang* auquel il aura été amené. Grâce à cette *διάκρισις* nous parvenons jusqu' à l'antichambre du Bien, et nous sommes à même d'opérer les *κρίσεις* finales, en allant, progressivement cette fois, du Bien, le fini, principe *transcendant* de toute mesure et, par suite, de toute composition exacte des essences (cf. *Rep.* vi. 509 b), jusqu' à cet infini dont nous étions partis. La *διάκρισις* a donc été réellement mise en œuvre. Au reste, quand Protarque suggérait l'existence du cinquième genre, Socrate n'a pas dit, tant s'en faut, qu'il n'en userait pas, mais seulement que l'heure n'en était pas venue. C'est qu'en effet la *fonction diacritique* devait bientôt s'actualiser dans toute la discussion sur la valeur comparée du plaisir et de la sagesse. Mais Protarque ne l'a pas compris. L'énigme que la fin du dialogue nous donne à deviner est donc un de ces jeux où se plaît l'*humour* de Platon. En somme, nous assistons ici, je crois, à une tentative pour préciser, approfondir et réformer la méthode de division: celle-ci, dès lors, comporterait une double démarche, dont chaque moment serait, selon les besoins de la recherche, la contre-épreuve de l'autre.

Un philosophe français contemporain, Octave Hamelin, mort prématurément,[1] a eu comme Platon, qui à son jugement y a échoué, l'ambition de construire synthétiquement le contenu notionnel de la représentation, de dessiner la hiérarchie des catégories de l'Être. C'est donc, comme chez Platon, une *démiurgie* de la pensée et de l'être. Or l'intention, maintes fois exprimée par lui, de faire que, dans la synthèse, chaque essence soit 'amenée à son rang' me paraît répondre à la même préoccupation que manifesterait, selon moi, la διάκρισις du *Philèbe*.

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[1] 1856–1907. *Essai sur les éléments principaux de la représentation*, Paris, 1907; 2e éd. avec notes et références par A. Darbon, Paris, 1925.

THEORY AND PRACTICE OF NATIONAL LIFE

WINCENTY LUTOSŁAWSKI

(*Wilno*)

FOR an incalculable period derivation from a common stock constituted the main foundation of social unity. For this carried with it—a common language, common traditions, and customs, a specific racial type—all of these forging numerous links between the members of the community.

This order of things underwent a gradual but very radical change chiefly in the course of the last century. It is no longer a common stock that matters, but a common aim or mission. Physical relationship is a material cause, while an aim is a spiritual aspiration. Material links are transformed into spiritual links, and a new order of society is arising. The first example of such an overcoming of the material differences of origin occurred in the monastic orders, which accepted members of all social classes and of different ethnic origin, and produced uniform types, such as the Franciscan, the Dominican, the Jesuit.

On a vaster scale this overcoming of material differences between individuals is manifested in modern national life. A nation is a group of spirits having a common aim, no matter what the origin of the bodies in which these spirits have incarnated. Every modern nation is formed from the mixture of many diverse ethnic elements. In England the original Celts, Picts, and Scots were amalgamated with their conquerors, Danes, Angles, Saxons, and Normans, and almost every Englishman has ancestors of mixed origin. A similar process went on in France and Italy and on a still vaster scale is beginning in the United States, where people of very varied origin are thrown into a melting pot, from which the future uniform type of the American will emerge.

The term *nation* is unfortunately mostly used to denote a people or a race, or the citizens of a state. In order to explain the metaphysical reality of national life it is essential to establish the distinction between racial origin and national mission, and so we shall call a *nation*, not the inhabitants of a state, nor the people using a common language, but a *group of souls, having the same spiritual quality and the same mission to fulfil for the benefit of mankind.* No true nation can be considered apart from the service it renders to the whole of humanity. If we limit in this way the meaning of the term nation, then true nations will appear to be very few, and to consist so far of a very small number of individuals. Such a process has been going on for centuries in England, France, and Italy.

Less known in Western Europe is the national life of the Polish nation, which in the nineteenth century produced a great literature, despite the oppression of three despotic neighbours who had partitioned the country. This national life led in the twentieth century to a reconstitution of an independent state on a little more than one-half of the territory that belonged to the old Polish republic. This Polish national life is of the greatest importance for the general theory of national life, because it has shown that a nation may grow and prosper spiritually, even when deprived of its ordinary conditions, such as a national government and an independent national territory. The Polish nation had its greatest creative period not under a national sovereign, like Louis XIV or Queen Elizabeth, but under three despotic enemy governments, which did their utmost to destroy the Polish spirit. Polish thinkers and poets are intensely national, and we owe to them a theory of national life which deserves the attention of Western nations, because it explains the political transformation of Europe and allows us to foresee future developments.

According to this doctrine the spiritual links between individuals which unite them in a national mission will grow and multiply until the whole life of each individual is intimately related to the life of his nation. Such nations, formed of individuals fully aware of their participation in the common task, will become the natural organs of a regenerated mankind. The Fall introduced into the life of mankind physiological procreation, which has led to pride of birth and to caste and class consciousness. This is the curse of original sin, perpetuated by bodily heredity. Difference of origin breeds envy and hate, and leads to wars between neighbours and to constant conflict between classes of different origin.

Christ has shown the way of salvation for individuals, giving himself the example of a perfect individual life. But social and political relations have remained pagan, and in order to introduce Christianity into these relations a truly Christian nation is needed, formed of individuals, carrying the Christian spirit into all their activities. When the whole of mankind consists of such nations, the consequences of the Fall will be finally annulled, and the prophecy of Isaiah (xxv. 8) confirmed by St. Paul (1 Cor. xv. 26, 54) and John the Divine (Rev. xx. 14; xxi. 4) about our final victory over death will be fulfilled.

Meanwhile the transformation of peoples and races joined together by the link of common origin into nations joined together by the link of a common aim, each having a universal mission to fulfil, is best exemplified in the historic relations between France and England, once enemies and now becoming more and more intimately associated for the general welfare of both nations. Something similar happened in the relations between Poland and Lithuania more than five hundred years ago, when these two neighbours, after centuries of conflicts, formed a political union lasting until the partitions of Poland.

The number of true nations cannot be very large, if each nation has to be characterized by a particular mission. The process, which began several centuries ago, and which may be called the integration of modern nations, has not yet anywhere reached its culmination. If we look at the very slow unification of France through the gradual understanding by the inhabitants of each province of a common ideal above local interests, we may easily imagine that if such a widening of horizons proceeds, the French may, in a distant future, be merged with the Italians, Spaniards, and Portuguese into one Latin nation, and so restore the lost material unity of the Roman Empire.

Similarly the lost political unity of the English-speaking world may also be regained by the growth of many links now existing between England, her colonies, and the United States. In that great historical progress, which leads to the formation of true nations, as living organs of mankind, it is of little importance, whether Spanish South America joins the Anglo-American or the Latin union.

Germany has not yet reached a national unity in the same sense as France, England, and Poland, because its inhabitants have not had to overcome such racial differences and have not assimilated so many foreign elements. The German stock has been incorporated into most western nations, and those we now call Germans are descendants of the remainder of the original German migration, mixed in certain parts of the territory with Slavs, but nevertheless racially purer than any Western nation. Such racial purity maintains the predominance of material causal links over spiritual final links, which can only be tested by the voluntary assimilation of people of varied origin.

In order to transform this Teutonic remainder into a nation in the modern sense, a full amalgamation of the Teutons in Germany, Switzerland, Austria, Holland, Scandinavia, would be necessary.

This process would be similar to the unification of France from such very different elements as Savoyards, Bretons, Basques, Normands, Provençaux, Bourguignons, Gascons, &c.

In the Polish republic the process of the formation of a true nation from Poles, Lithuanians, Letts, Ruthenians, Germans, Jews, Tatars, Armenians, and other peoples began in the fourteenth century. This process was interrupted by the partitions of Poland in the eighteenth century.

Four great nations: the English-speaking people, the Latins, the Teutons, and the Slavs, would control not only Europe, but the whole of America, Africa, Australia, Oceania and Northern Asia. In Asia, China and Japan are clearly predestined to form one great nation, and the numerous races of India another. The third Asiatic nation is not yet clearly in view: it might grow around Palestine, Mesopotamia, and Arabia, or around Persia or Turkey.

This rough outline of possible developments shows simply that true nations cannot be many and that each true nation needs a vast territory for its full growth. Whether mankind will be finally organized into these seven great nations, must remain uncertain for a long period. But this changes nothing in the theory of national life, or in the above distinction between *causality*, ruling the competition between peoples and races—and *finality* which is the real foundation of national life.

The introduction of finality into social relations emancipates them from the yoke of mere causality. Until recent times causality has prevailed and has often taken the form of a mechanical necessity, the laws of human evolution being looked upon as inexorable, like the laws discovered by physicists in the inorganic world. A cause acts apart from consciousness, while an aim must exist in some consciousness.

The mere notion of a national mission necessarily implies two realities: a God as the source of inspiration, and a number of souls able to receive that inspiration. Thus finality in human relations modifies or even cancels causality. Causality may be material, finality is always spiritual. The life of a race or a people may be chiefly material, but the life of a nation must be spiritual. This national life begins as the life of a creative group; there is a struggle for life between the ideals of different individuals, and certain ideals prevail, so that they become the common goal of the whole group; gradually a succession of individual conversions to the ideals of that group increases its numbers, until it is identified with the whole population of a national territory. National life is therefore a growth from within, a constant flow of genuine inspiration, inducing efficient activity.

There are two contrary forms of the state known in history. The older form is the despotic state, ruled by the arbitrary will of one individual. This oriental despotism generally implies the hereditary power of a dynasty, because many generations are needed to secure for an individual a position in the state which permits him to identify his will with the supreme will. After centuries of oriental despotism came a reaction, which produced the modern democratic state with the republican constitution. But along with the awakening of national consciousness in many countries, a new third form of the state is foreshadowed, which may be called the national state.

The national state is neither despotic nor democratic, nor intermediate between the two older forms. Its chief characteristics may be summed up as follows:

(1) The whole bureaucratic organization for collecting taxes will become superfluous, because voluntary contributions of patriotic citizens will sufficiently fill the Treasury.

(2) If a national state is surrounded by other national states, armies will not be needed, as the fulfilment of a mission for the general welfare of mankind excludes every ambition of conquest.

(3) Unemployment is likely to disappear, but spiritual, intellectual, and artistic activity will greatly prevail over material production, which will be naturally limited to the satisfaction of the real needs of the inhabitants, with no ambition to conquer foreign markets.

(4) Crime will become very rare, and the administration of justice, as well as the activity of the police, will occupy a gradually decreasing number of efficient officials.

(5) In legislative bodies the number of the members will be greatly reduced, but a much higher degree of intelligence and character will be required of them. The same relation between quality and quantity of members will prevail in all government offices. Everywhere a few really competent and well-paid officials will supplant the crowd of inefficient bureaucrats.

(6) The government of a national state will have a much greater stability than democratic governments, but will consist of fewer members chosen from experts in statesmanship. The power of the government will be limited to activities which cannot easily be left to private initiative or to the free social organization of individuals. There will be less need for interference by the state

in the private life of individuals, if the whole of this private life is devoted to the public welfare.

(7) Diplomatic relations will be based on sincerity and a thorough understanding of every national mission; this is only possible if a religious spirit permeates the whole of political relations.

This ideal of a national state will not be realized by a sudden revolution upsetting the existing democratic governments. They will be gradually transformed by a succession of voluntary acts of individuals, such for instance as free gifts to the Treasury, the foundation of institutions of learning and of artistic activity, the creation of social movements raising the standard of political life.

One of the signs of this transformation of individual life is the interest awakened in the life and activity of great men who have improved the life of their nation. Admiration and love of great predecessors form the strongest motive for continuing their work. The continuity of national endeavours requires a plan based on the knowledge of the past, worked out in a philosophy of national history which naturally reaches into the future. The full understanding of a national destiny is impossible without some general conception of reality. The classification of such conceptions or *theasies*[1] has been heretofore neglected in philosophy because each philosopher looked upon his own theasy as the only truth worth considering. National life, being a historic process, the growth of national life implies a growing interest of all citizens not only in their national history and in the life of the great men of their own nation, but also in the general history of mankind and of human thought. Each great life is always a contribution towards the predominance of conscious finality over mere causality, and therefore most great men have through their originality worked for the transformation of the contemporary democratic state into the future national State.

The humiliation of such despotic empires as Germany, Austria, Russia, Turkey, in the world war led to immediate consequences similar to the humiliation of despotic Spain in the beginning of the nineteenth century, namely to the formation of many democratic states, wrongly called nations. A true nation is always built up through the assimilation of many ethnic elements, as has happened in France, England, and Poland in past centuries. The twenty Spanish republics of South America are bound in time to form one nation, either with Latin Europe or with English-speaking America. Equally the small states built on the territory of the old Polish republic, like East Prussia, Lithuania, Latvia, Ukraine, can save their political liberty only by the closest union with Poland, Rumania, Czechoslovakia, forming one vast commonwealth, able to preserve its independence.

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[1] See the author's *Knowledge of Reality*, Cambridge University Press, 1930.

It would be premature to attempt a definition of national missions. The services rendered by each nation to mankind consist chiefly in original creative activity, revealing new views of truth and beauty. In this sense the peculiar political constitution of the Polish republic[1] was an experiment on a vast scale of a new form of government most akin to the ideal of a national state. After the loss of its independence the Polish nation produced in the nineteenth century a theory of national life, based on the experience of the past and on aspirations for the future.

Other political doctrines have always implied some kind of compulsion in order to maintain an existing order or to introduce a reform. People have fought for their political ideals, because everybody was convinced that his party alone was right and all its opponents wrong. The Messianic doctrine of nationalism, if we may use in a new meaning this much abused term (which has usually meant tyrannical imperialism) does not lead to political strife, but to the peaceful co-operation between those who fully understand each other and have a common ground for their social activity. They form groups, associations, brotherhoods, utilizing such liberty as is left in democratic states, and increasing that liberty, not by argument, agitation, or civil war, but by practical endeavours.

The chief truth about national life is that there can be no real national life that does not serve mankind, nor can there be any possibility of a real improvement in the life of mankind without its organization into a few true nations, growing into living organs of humanity. National selfishness delays the process, while every service rendered by a nation to others moves towards the goal, which is the kingdom of God on earth.

The existence and independence of each nation is justified by service to others. If this is generally understood, the process of the formation of national states out of the chaos of democratic governments will be accelerated. But no violence, no compulsion of any kind can serve that purpose. The growth of a national consciousness is spontaneous, it is the result of a spiritual force influencing many individuals all over the earth inspired to improve the social life around them and to work for the increasing unity of true nations.

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[1] See Count von Moltke's *Poland*, London: Chapman & Hall, 1885.

In democratic states most politicians are ready to use some kind of physical, intellectual, or emotional force in order to urge the masses to obey ambitious leaders. This method of wholesale suggestion by eloquence and argumentation, by promises not likely to be kept, by awaking jealousy or contempt, hate or fear, in large audiences—does not lead to any real improvement in national life.

Such improvements are achieved by the calm energy of small groups of individuals who naturally agree, because they have a common inspiration and love it. The love of an ideal links people more closely than is possible amidst the strife of political parties, denouncing one another.

Modern democracy, as a violent reaction against despotism, is usually founded on the assumption that the will of the citizens is the only source of constitutional law. National life is wholly founded on faith in a providential direction of human affairs and on divine inspiration for the solution of our social problems. Consistent democracy as well as socialism and bolshevism, which are its ultimate consequences, is irreligious and even often candidly atheistic. National life is essentially religious and founded on the conviction that the ideal of the commonwealth depends not on human whims, nor on popular opinion, but on a divine plan, revealed to a few wise men and requiring competent experts for its realization. The true source of law and justice is the will of God, and the state depends for its existence and independence on obedience to divine law. If this law is broken, as it generally has been in history, the most powerful empires are crushed.

The ideal of a national state corresponds to a view of life of very recent origin, called *messianism*, akin to the great tradition of French spiritualism, started by Descartes and Malebranche in the seventeenth century and continued by Maine de Biran in the nineteenth century and Renouvier at the beginning of the twentieth century. Its chief certainties are: the existence of God as the Creator of the Universe, the freedom and immortality of each soul, a constant action of divine Grace on human will, leading to a regeneration of fallen humanity in a Kingdom of God on earth. The national life of true nations as organs or instruments of regenerated mankind will consist in mutual service and love, chiefly manifested in the discovery of truth, the creation of beauty, and the perfection of good will among men.

THE CHIEF CHARACTERISTICS OF A SYSTEM OF LOGIC BASED UPON INTUITIVISM IN EPISTEMOLOGY AND IDEAL-REALISM IN METAPHYSICS

N. O. LOSSKY

I GIVE the name of Intuitionism to the epistemological theory, worked out in several of my books, according to which the subject knows objects as they are in themselves, i.e. as they exist apart from the act of knowing directed upon them. I call the act of knowing in and through which the subject becomes aware of the object *intuition* or *contemplation*, designating by this word not the irrationality or the concreteness of knowledge but merely its directness or immediacy.

By *ideal-realism* I mean the doctrine that the world contains real being (events in space and time) which is grounded in ideal being (superspatial and supertemporal).

Real being is cognized by means of sensuous intuition, and ideal being by means of intellectual intuition; mystical intuition has for its object *metalogical* being.

An Intuitive system of logic connected with ideal-realism in metaphysics may be characterized as follows.

According to the Intuitive theory every act of knowledge contains a subjective and an objective aspect. By the first is meant the subject's act of attending and discriminating, while the objective aspect may be a trans-subjective and non-mental reality. The logic of Intuitivism is completely free from any tendency towards *psychologism* and is concerned with the structure of the objective aspect of proof, i.e. of judgement and inference (see § 22), hence the term 'logical' means 'forming part of the objective aspect of proof'. This implies that the logical belongs to the realms of the ideal, since the structure of every object is superspatial and supertemporal. The ideal realm is not of course limited to the logical; only such elements of it are logical as condition the possibility of proof. Since the objective side of judgement and inference is reality as it is in itself, the *logical* structure of judgements and inferences is at the same time the *ontological* structure of reality: certain ideal ontological forms of being that has entered the field

[1] See my *Handbuch der Logik*, published by Teubner und Obelisk, Leipzig, 1927. The references in what follows will be to the different paragraphs of the book.

of our consciousness and become an object of judgement and inference have, at the same time, the logical form of judgement and inference. (See § 27.)

The most important logical form is that of logical dependence—the relation, namely, of ground and consequence, consisting in the fact that the thought of $\overbrace{\substack{\bullet\bullet\bullet\bullet\\ \bullet\bullet\bullet\bullet}}^{S}$[1] necessarily involves the thought of P. Ontologically considered this is the relation of causal dependence between real events (e.g., 'the sheep ran up against me from behind and knocked me down') or the relation of functional dependence between ideal entities ('two magnitudes severally equal to a third are equal to each other'). Both these ontological relations have a necessary and at the same time a synthetic character in the sense that they consist in a transition from some links in the chain of reality to other, fresh ones (§ 27). Since the logical dependence between S and P in judgement and inference is a form of these ontological relations, it too has a synthetic character and is an instance of the synthetic necessity of sequence.

The pre-Kantian formal Logic explained the logical relation of ground and consequence as a relation based upon the laws of Identity, Contradiction and Excluded Middle—interpreting it, that is to say, as the analytical necessity of sequence (§ 14). On that view the law of Sufficient Reason is no more than the sum of the three laws of thought—Identity, Contradiction, and Excluded Middle, and all logical necessity is declared to be analytic. Apodictic judgements are said to be analytic; the necessary transition from premisses to the conclusion is taken to be an instance of the analytic necessity of sequence, wholly based on the three laws of thought. Such an interpretation of the law of sufficient reason is erroneous: inference serves to extend our knowledge and is therefore a synthetic system. The logical relation between the premisses and the conclusion is characterized by a *synthetic necessity of sequence*. Every judgement, too, is a synthetic system containing this synthetic necessity of sequence (analytic judgements of the type SP is P take us nowhere). On the subjective side an act of judgement is characterized by the certainty that it contains truth—by the certainty, i.e. that the given object (real or ideal) is accompanied by those features of reality which are expressed by the predicate of the judgement; this certainty finds its objective justification in the fact that the object judged about contains the totality of conditions which give rise to the predicate—whether we are aware of all those conditions or no (§ 29).

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[1] The object is indicated in this way to suggest that it is a fragment of reality that has no definitely circumscribed limits: S stands for the discriminated content of the object and dots for all the other indifferentiated contents.

That part of the *object* of judgement (i.e. of the thing judged about) which serves as a necessary and sufficient ground for the predicate may be called the *subject of judgement.* In the mathematical judgement 'the area of a right angled triangle equals half the product of the sides including the right angle' the subject of judgement, i.e. the ground of the predicate is to be found in the differentiated aspect of the object; in the judgement 'this rose bush is withered' the ground is also to be found in the object 'this bush', but in the undifferentiated aspect of it—the structure of its tissues, the condition of the soil, &c. It follows that on this view all judgements, including judgements of fact, have a necessary character (§ 29). This characteristic of truth is expressed in the law of Sufficient Reason, which should be formulated as follows: 'There is a sufficient reason for every truth expressed in a judgement or an inference, i.e. every truth contains the synthetic necessity of sequence[1] (§ 29). Thus understood, the law of Sufficient Reason is the fourth logical law, irreducible to the three analytical laws of thought.

Kant was aware that the analytic necessity of sequence does not help to increase knowledge, and he set out to inquire how synthetic *a priori* judgements are possible. He solved the problem by discovering synthetical logical forms, but he lowered their value by interpreting them as the *a priori* forms of understanding which enable us to build up the system of nature as phenomenal, giving us no information about things in themselves (things as they exist independently of being known). Another defect of Kant's theory is that he did not apply his discovery of the synthetically-logical forms to the theory of inference (§§ 20 and 180) but only to explaining the synthetic principles of systematic scientific knowledge.

The logic of Intuitivism takes the synthetically-logical forms to be the cosmic ontological forms of things apart from their being known (i.e. forms of things in themselves), and it makes use of them for the theory of inference as well as for the theory of judgement.

Logic cannot dispense with the conception of synthetic necessity of sequence. It is not difficult to show that an analytical theory of inference is mistaken,[1] for even in a syllogism of the mood *Barbara* the conclusion always contains a new element; thus, for instance, in the syllogism the conclusion contains a new logical—and consequently, a new ontological—relation between the subject and the predicate. I will consider here one instance of the analytical theory of syllogism—not only of the categorical but of the conditional syllogism as well, namely, the theory worked out by Mr. B. Russell in the *Analysis of Matter*. Following Wittgenstein's *Tractatus Logico-Philosophicus*, Mr. Russell writes: 'Propositions which form part of logic, or can be proven by logic, are all *tautologies*—i.e. they show that certain different sets of symbols are different ways of saying the same thing, or that one set says part of what the other says. Suppose I say "if p implies q, then not-q implies not-p". Wittgenstein asserts that "p implies q" and "not-q implies not-p" are merely different symbols for one proposition: the fact which makes one true (or false) is the same as the fact which makes the other true (or false) . . . I should add—though here Wittgenstein might dissent—that all pure mathematics consists of tautologies in the above sense.' Any constants in a proposition which is a tautology may be turned into variables without impairing the tautological quality of the proposition. The general logical tautology 'for all values of X, α and β, if X is an α, and all α's are β's then X is a β' enables us to make the judgement 'if Socrates is a man and all men are mortal, then Socrates is mortal.'

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[1] In my *Handbuch der Logik* I consider all the possible varieties of the analytic theories of inference.

B. Russell's view is essentially *analytic* since in the instances he considers he reduces the necessity of sequence to the mere principle of identity, seeing in them no synthetic necessity of sequence. To show that this view is mistaken, let us take for the sake of clearness not the syllogistic formula, but, say, such an axiom of mathematics as 'two magnitudes A and C, equal severally to a third magnitude, B, are equal to each other'. It is perfectly obvious that 'the equality of magnitudes of A and C to the magnitude B' is not identical with the 'equality of magnitudes A and C': these are *two different* objects of thought. True, the first is so inseparably connected with the second that together they form *one complex object* that has two aspects. But the self-identity of a complex object containing two elements X and Y by no means explains the necessity to think of Y once we think of X. One might try to explain it by saying that the first part of the axiom (the equality of magnitudes A and C to the magnitude B) expresses the whole complex object, while the predicate (the equality of A and C to each other) expresses a part of that object, so that the necessary character of the axiom is due to the relation of partial identity between the whole and the part. In truth, however, this explanation is invalid because the necessary connexion that is expressed by the axiom and that gives it a cognitive value is profoundly different from the relation of partial identity which we discover in comparing the predicate of the axiom with the whole of the complex subject. As the starting point of the judgement the complex subject of the axiom $\underbrace{\overset{A = B,\ B = C}{:\ :\ :\ :\ :\ :\ :}}$ is already known so far as the aspects A = B and B = C are concerned, but 'the equality of A and C to each other' has not yet been established—and to establish it is the purpose of the axiom. But even if the complex subject of the axiom were already known in all its aspects, the purpose of the axiom would still consist in establishing the fact that the characteristic of 'both A's and C's equality to B' is the *ground* which necessarily leads to a new and different characteristic, namely, 'A's and B's equality to each other'. The whole of the complex object of thought is broken up in the axiom into two heterogeneous, not identical parts, and the axiom is meant to express the *law* that the first part of this complex object is the ground for its second part, not identical with the first. In accordance with my terminology this first part of the *object* judged about must be called the *subject* of the judgement. Those who transform this synthetic judgement into an analytic one—into tautology—compare the predicate with the object judged about, instead of comparing it with the subject of the judgement. In doing so, they really replace the valuable axiom by a judgement that has no value whatever: 'two magnitudes equal severally to a third and at the same time equal to each other, are equal to each other'. Such a judgement has no value because it leaves open the question whether there may exist two magnitudes which being severally equal to a third might at the same time not be equal to each other.

A similar mistake is made by those who hold the analytical view of the syllogism, taking its formula to be a mere tautology. The combination of premisses 'all liquids are resilient, mercury is a liquid' is a *new complex object of thought*: it includes the aspect expressed by the conclusion 'mercury is resilient', and so, if we compare the conclusion with the whole object thought of in the inference, we shall find that there is a relation of identity between them. Such comparison, however, is illegitimate, because until the inference was made, the aspect of the object expressed by the conclusion was not known to us; but even if it were known, the purpose of the inference consists in breaking up the total object into two heterogeneous parts which, in spite of their heterogeneity, are so related to each other that the first involves the second and is a sign of its presence; thus, inference enriches our knowledge about the world and often our practical activity as well, enabling us to foresee the second part on the ground of the first, or to construe the second part, different from it, but following from it in accordance with a law (§ 133).

The presence of synthetic necessity of sequence in axioms, definitions (§§ 53–5), and inferences explains why logical reasoning serves to increase our knowledge; but at the same time it compels us to give up the proud claim of possessing an absolutely clear and infallible system of rational truths.

The necessary character of the relations between the different parts of the living, creatively developing reality, conditions the regularity with which some of these relations are repeated. We find the same thing in knowledge: the discrimination of synthetic necessity in individual cases precedes the discrimination of regularity of sequence and conditions our knowledge of it (§ 174). Logic based upon an Intuitive theory of knowledge accounts for this fact by insisting that it is reality itself, life itself that enters the field of our consciousness and is discriminated by us; but systems of logic, based upon the view that knowledge is a process of copying or symbolizing reality or of construing it by means of *a priori* forms, generally invert the order: the regularity with which a relation repeats itself is for them a sign of its necessary character (§§ 179, 180). The weakness of this view becomes obvious in working out the theory of scientific induction: premisses suitable for inferences according to the methods of Agreement or Difference can only be discovered if particular judgements based on sense-perception already contain the recognition of the synthetic necessity with which the P under investigation follows from the given individual S. The S will contain, however, superfluous elements which have nothing to do with P, and the purpose of scientific induction consists precisely in disentangling that kernel of the object S which is a sufficient ground for P, or, at any rate, in decreasing the number of superfluous elements or in discovering (by the method of Difference) a part of the ground (§§ 149–51).

Not every universal judgement, however, is established by the methods of Induction or of Deduction based upon inductively obtained premisses. Some universal judgements are established immediately by an intellectual intuition directed upon the ideal object of those judgements. Such, e.g., is the axiom that 'two magnitudes severally equal to a third are equal to each other'. The logical justification of this truth lies wholly within it—in the circumstance, namely, that the subject of the judgement 'two magnitudes separately equal to a third' contains a directly discriminated *sufficient ground* for the predicate 'equal to each other'. It is a case of what Husserl calls *Wesenschau* (§ 75).

This view resembles Kantian *a priorism* in so far as it recognizes in the system of knowledge the presence of universal judgements that are not based upon either deduction or induction. On the other hand, it profoundly differs from Kant's theory, for it regards those judgements as valid not merely because they are important for a system of scientific knowledge but chiefly because they contain within themselves the logical bond of ground and consequence, the synthetic necessity of sequence (§ 181).

According to the Intuitive theory, singular judgements based on sense-perception and universal judgements arrived at by intellectual intuition contain the logical bond answering to the law of sufficient reason; hence the whole system of knowledge from its most elementary beginnings down to its final conclusions is founded logically and, at the same time, empirically upon intuition, i.e. observation of reality as such (§ 73).

The system of logic based upon Intuitivism is throughout concerned with *meanings*. It explains all the properties of judgements and inferences by the relation between the *contents* of notions and not by the relation between their extension; thus for instance the validity of the first figure of the syllogism rests for it not on the *dictum de omni et nullo* but on the principle that 'the ground of the ground is the ground of the consequence' (§§ 88, 121, 136, 143).

Finally, it should be pointed out that the distinction drawn by Intuitivism between the subjective and the objective aspects of knowledge, i.e. between the mental acts and the objects upon which they are directed, explains how there may be absolute identity between the recurrent elements of knowledge. Thus, for instance, if the syllogism 'London is the capital of Great Britain, the capital of Great Britain is the biggest city in the world,' &c. is to be valid, each term must remain absolutely identical with itself in spite of its being repeated twice. This is possible because although the knowing subject's physiological and psychical acts are different, the object he has in view is absolutely the same in both cases (§ 35).

THE VALUE OF ETHICAL AND POLITICAL PHILOSOPHY AS GUIDES IN PRACTICE

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IT is a healthy exercise for those of us who are engaged in the study of philosophy to ask ourselves from time to time whether our studies have any real effect on the conduct of ourselves and our fellow human beings. And certainly there are many who would answer this question with a decisive negative. They might admit that these speculations are, as one of our leading contemporary philosophers puts it, 'good fun' for those who have a taste that way. But they would assert that the vast majority of people, including, they might suspect, most of the philosophers themselves, made no use of these speculations in the actual conduct of their lives, and got on very well without them. The philosopher, in defence of his study, would have to attack one or both of the assertions implied here. He might take up the line of argument suggested by Plato, and ask whether the majority of people did really get on so very well in the conduct of their lives that no improvement was possible. And he might argue that the most hopeful direction from which improvement might come would be from the extended application of philosophical thinking to their difficulties. There is undeniable point in Plato's retort that the reason why the philosopher is of no use to the practical man is that the practical man will not take the trouble to make use of him.

On the other hand, he might substitute for this, or combine with it, another line of defence. He might ask whether the mass of people were really so innocent of philosophy as they supposed. After all, even the most practical of practical men thinks sometimes. And we may suspect, even though he does not give the name to it, that an element of that special kind of thinking that we call philosophical will inevitably intrude itself from time to time into his thought. If that is so, it must affect his practice in some degree. And it is reasonable to suggest that, as he has to think philosophically at times, he should take some trouble to make his philosophical thinking as sound as possible.

One of the chief obstacles to the recognition of this has been the fact that philosophers sometimes have put forward, and sometimes have been wrongly supposed to put forward, claims for the practical effects of their study which cannot be substantiated. Also, the practical man, when he has given a momentary consideration to the possible value of philosophy, has sometimes made demands on it which it could not possibly fulfil. And, because it could not fulfil these, he has leapt to the conclusion that it can be of no practical value at all. It is therefore of the first importance to consider what philosophy cannot do, and should not claim to do, for practice. That is an essential preliminary to deciding what, if anything, it can do.

In the first place, it would now probably be generally admitted that philosophy cannot arrive at a single general principle of right conduct from which, by a simple process of deduction, we could decide without difficulty exactly what was right to do in any particular circumstances. There is no doubt that Kant thought he could do this. But the general consensus of opinion is that his attempt failed. In explaining this failure stress is generally laid upon the infinite possibilities of difference in the circumstances of each particular action, which make it impossible to arrive beforehand at any general rule which will apply to all possible circumstances. But though criticism on these lines is undoubtedly sound as far as it goes, it does not seem to me to get at the real point of weakness in the Kantian theory. At any rate, as usually formulated, it does not draw out sufficiently clearly its own implications. For the reason why it is thus impossible to arrive beforehand at absolutely universal rules of conduct lies in the very nature of our moral knowledge.

Most human beings, of course, have a greater or lesser number of general principles of conduct in their minds by which their behaviour is influenced. The greater part of these comes to them from the tradition in which they have been brought up. Some also comes from reflection on their own actions and feelings and moral decisions. But the reflection is always subsequent to the experience of the particular case. First-hand moral experience always, I think, comes to us in connexion with some particular case in some particular circumstances. On the comparatively rare occasions on which we have such experience we feel more certain that it would be right or wrong to act thus or thus on this particular occasion than we do about any general statement of the kind of action that is right or wrong, or of the nature of the qualities, rightness and wrongness.

In this way and in this degree our general moral principles are subsequent to and dependent on our particular experiences.

That does not mean that we arrive at these principles by a process of induction in Mill's sense. We do not examine a large number of particular moral judgements and try to discern the common elements in them by the methods of Agreement and Difference. It is rather induction in the Aristotelian sense. By examining our experience in the particular case we find that the universal element in it which makes us think of it as right or wrong is, to some degree, revealed to us directly. And so, if we like to take the trouble, we can generally formulate to ourselves some general moral principles based on our analysis of this particular case. But this is subsequent, and can only be done after we have experienced the particular case, either in actual fact or in imagination, if our imagination is vivid and concrete enough.

On the other hand, there is always the danger of generalizing too far or too rigidly. No single particular experience nor any finite number of particular experiences can contain in themselves the whole of goodness or rightness. And therefore we could not be certain that we had a completely satisfying moral principle until we had exhausted all possible particular moral experiences. Short of that, we have to recognize that any moral principles we can formulate are provisional, the best we can arrive at in the circumstances. And though they may work perfectly satisfactorily as far as our experience goes, we must always bear the possibility in mind that they may have to be added to, developed, modified, and corrected in the light of further experience. This is one of the ways in which moral progress is possible.

I have dwelt on this point to bring out my contention that any general beliefs and statements about morality, any system of casuistry or any philosophical theory is necessarily dependent upon and controlled by first-hand moral experience, and cannot control it. To state fully what the nature of this first-hand moral experience is would require a prolonged and careful work of analysis which would be impossible here. It is sufficient for the argument if we recognize, as we surely must, that there is something to which this term might be appropriately applied. And, whatever it is, it is not a piece of philosophical reasoning.

This will help us to see why another demand that is sometimes made on philosophy is unreasonable and impossible of fulfilment. The moral philosopher is sometimes expected to give an answer to the question, Why should I be moral? The legitimacy of such a question has been much canvassed. And there are doubtless certain senses of the words in which it is capable of being answered.

But in the sense in which it is most frequently and popularly used it is an entirely unreasonable demand to make. For in that sense, if I mistake not, it is suggested that the moral philosopher ought to be able to supply an argument which will make anyone who hears it not only see why he ought to be moral—which is, after all, a mere tautology—but actually wish to be so. It is supposed that he ought to be able by argument and reasoning to supply a motive for being moral to a person—usually a hypothetical person—who has no such motive already. And that demand is an absurdity. Moral philosophy, perhaps all philosophy, can only arise by reflection on experience. It cannot create or supply the experience.

Are we, then, to suppose that our conduct can be guided entirely by a series of such experiences in each individual case? There have been people who have supposed so. In particular, members of certain religious sects have felt that they could or should leave the control of their actions to an 'inner light' which could decide for them infallibly what they ought to do as each problem arose. If that were true, there would certainly seem no room for philosophical thinking as a guide to practice. But I think experience has proved that is not possible. For the inner light is, for most people, neither certain enough nor continuous enough to be a guide throughout life.

It raises problems of interest, which unfortunately cannot be considered here, when it is suggested that what has been described as 'first-hand moral experience', and had the character of immediacy or directness ascribed to it by implication, could be fallible. Does the possibility of mistake lie, not in the decision whether the action is right or wrong, but in the view of what the nature of the action itself is? Or is the experience of such a kind that some other sort of experience might be mistaken for it by those who do not trouble sufficiently to discriminate between their experiences? Whatever the explanation is, the fact seems undoubted that, though at the time of the experience it seems to give us a certainty at least much greater than anything else can give, yet we may subsequently come to believe that it guided us wrongly. And, further, it may happen that different people may have moral experiences to all appearances of the same kind which guide them in opposed directions about the same course of action.

If the 'inner light' is not an infallible guide, still less is it a continuous guide. This, again, is a fact which requires explanation, but which, as a fact, seems indubitable. Most of us have probably had such experiences, but most of us would recognize, I think, that they do not occur very often in our lives. Perhaps it is because to put ourselves at the point of view at which such experiences come to us is not a simple thing but requires an effort. It is only occasionally that circumstances are such that in themselves they force us to this point of view. And this effort is too great for ordinary people to carry on continuously, and would only exhaust us fruitlessly and unnecessarily. We, therefore, ordinarily have recourse for guidance to general rules or principles. Sometimes we have formulated these for ourselves by reflection on our own experience. Far more often we take them over from the accepted moral standards which we find in the world about us. These, too, have been built up largely by reflection on the moral experiences of many people throughout many generations. But in both cases the reflection takes us considerably beyond the original experience, and the results may be distorted in the passage from one person to another. It is in the examination and criticism of the general notions which have resulted from this process that the chief work of the philosophy of conduct lies.

Its primary task, perhaps its only task, is an examination, an analysis and an evaluation of the general ideas which we take for granted in our ordinary moral and political decisions. Moral philosophy is most deeply interested in the fundamental moral ideas of good and right. But that by no means exhausts its field of interest, and it concerns itself also with many subordinate moral ideas, like justice or courage or selfishness and unselfishness. And though its examination of these last may not be complete till it has carried it on to the more fundamental moral categories, certain provisional results may be arrived at very soon which affect the way in which we use these general ideas. Political philosophy analyses the conceptions of the state, sovereignty, independence, liberty, democracy, and so on. Thinking about these things must affect our attitude towards them in some way and in some degree. And if we begin to think and feel differently about them, at some point we shall begin to act differently.

Philosophy, then, affects our conduct not by providing a direct and immediate guide in action, but by influencing and modifying the accepted standards of conduct which lie in the background of our minds. I think a careful historical investigation could show many instances of this. The difficulty which many practical men will find in believing it arises from many causes. Partly it arises from the mistaken idea that philosophical thinking is confined to what goes on in the philosophical department of universities.

But the chief difficulties arise, once more, from extravagant expectations of what philosophy ought to be able to do.

Thus many young men, when they begin philosophy, believe that by one single systematic train of argument it ought to be possible to change entirely the assumptions on which we act and present us with a complete set of new ones, whereas, in reality, the effect of philosophical discussion and criticism only begins to show itself slowly and gradually, after it has been going on for a considerable time; and the modifications in our assumptions that it eventually produces often take a different form from the views advocated by any one individual who has taken part in these discussions.

Nor, I think, can we claim that philosophical thinking ever by itself produces much effect on the established assumptions which govern our conduct. At the least, it needs some stimulus from surrounding circumstances and some influence, other than itself, to turn its activities in this particular direction. It only produces its effect when it works in conjunction with other influences which are moving us in the same direction. But it would be equally absurd to exaggerate in the opposite sense, and speak of it as merely a bye-product of these other influences, which makes no difference to the effects they produce. Even if philosophical thinking could do no more than interpret and make explicit the other tendencies at work it would still make a profound difference to the way in which they worked. And there is no real doubt that on occasion it can do much more than this.

Finally, we must beware of the danger of what has probably done more to discredit the claims of philosophy than anything else, the premature construction of systems. Of course, in a sense, our thinking must aim at a system as an ideal: that is, we must always be striving to make it as complete and consistent and coherent as possible. But to suppose that any one of us can ever arrive at one moment of time at a complete and final system, which from henceforth we can apply without modification to the conduct of our lives, is a vain dream. Still more vain is the hope that one person could find a complete system by which other people could rule their lives. The practical value of philosophy lies in the constant and vigilant criticism of the assumptions which, without it, we should take too readily for granted. And its effect shows itself in the gradual and sometimes almost imperceptible development and modification of these assumptions. We often do not see that this development is taking place until one day we look round and realize that people are thinking very differently about this or that point from what they thought a generation or more ago. We say that the ordinary accepted moral or political ideas have changed. Many influences combine to bring about these changes. But among them philosophical discussion, not always or necessarily called by that name, plays a real part. And on the nature of this philosophical discussion will, to some extent which we cannot measure exactly, depend whether the changes are for good or evil.

DIE IMMANENTEN WERTUNGEN DER SOZIALEN THEORIEN UND INSTITUTIONEN. DIE NEUE SACHLICHKEIT. DIE SUGGESTION.

INGJALD NISSEN

(*Oslo*)

MAN spricht in unserer Zeit viel von der neuen Sachlichkeit. Es ist daher von Interesse zu sehen, worin denn diese neue Sachlichkeit eigentlich besteht und ob sie uns etwas über die sozialen Wertungen lehren kann.

Das Wesen der neuen Sachlichkeit kann man am besten von der Stellung des Erkenntnisproblemes heraus beleuchten. Worin besteht eigentlich der Zusammenbruch der alten Objektivität?

Wie in grossartiger Weise Max Weber gezeigt hat, ist alles Wissen eigentlich technisches Wissen, d.h. es gibt Wissen nur mit Hinblick auf gewisse zu erreichende Ziele, gewisse Wertziele, die eigentlich frei gewählt worden sind. Wir wissen, dass wir durch eine bestimmte Methode mit dem vorliegenden Material ein bestimmtes Wertziel erreichen können, wie aber soll man entscheiden, ob dieses Wertziel überhaupt erstrebenswert ist? In dem klaren Erfassen dieses Problems liegt die Schwierigkeit der Situation der erkenntnistheoretischen Forschung. Die Situation lässt sich vielleicht am besten durch ein Schema ausdrücken, in das sich die verschiedenen Begriffe, mit denen die Erkenntnistheoretiker arbeiten, einordnen lassen.

Nehmen wir an, dass auf einem bestimmten Gebiet eine Summe faktischen Wissens vorliegt. Nennen wir dieses Material S. Nehmen wir weiter an, dass durch dieses Wissen ein bestimmtes Wertziel erreicht werden kann. Dieses Wertziel nennen wir W. Der Zusammenhang zwischen S und W lässt sich dann durch das Schema S—W ausdrücken. In diesem Schema lassen sich die verschiedenen erkenntnistheoretischen Gesichtspunkte einordnen. Der Faktor S besagt, dass ein empirisches Material immer zum *System* zusammengestellt werden muss, ehe es überhaupt für uns Erkenntnis gibt. Es ist dies der alte kantische Gedanke, die Systemidee, die wie bekannt einer sehr bedeutungsvollen philosophischen Richtung: dem sogenannten Logizismus zugrunde liegt. Der Empirismus behauptet, dass alle Erkenntnis auf direkte Erfahrung aufgebaut ist. Dies kommt in unserem Schema dadurch zum Ausdruck, dass die einzelnen Komponenten des Faktors S aus der Erfahrung stammen können oder vielleicht müssen. Der *Empirismus* findet so in unserem Schema einen selbsverständlichen Platz. Aber, wie die Logizisten überzeugend dargelegt haben, gibt ein empirisches Material für uns erst Erkenntnis, wenn irgend eine 'Ordnung' etabliert wird, d.h. die 'Tatsachen' müssen zum System zusammengestellt werden. Wenn aber die Tatsachen zum System zusammengestellt werden, dann erst tritt ihr immanenter Sinn hervor, und dieser Sinn liegt in dem Ziele, das durch Wissen um diese Tatsachen erreicht werden kann. Es liegt hier das Phänomen vor, das die *Intentionalität* alles Wissens genannt worden ist. Unser Wissen ist intentional, weil die unumgängliche 'Ordnung' der Tatsachen, ohne die Erkenntnis überhaupt nicht zustandekommt, immer irgend ein W hervortreten lässt, nämlich den, der systematischen Ordnung immanente Wertgesichtspunkt. Die Behauptung, dass alle Erkenntnis mit Wertungen arbeitet, lässt sich nun erklären. Erkenntnis besteht darin, dass man zu irgend einem W ein systematisches S gefunden hat, oder auch umgekehrt, dass man zu einem geordneten empirischen Material das entsprechende W gefunden hat. In alle vollständige Erkenntnis geht somit irgend ein W ein. Insoweit haben die Erkenntnistheoretiker recht, die behaupten, dass in alle Erkenntnis irgend eine Wertung eingeht. Das Moment von *Sollen*, von dem man spricht, liegt in unserem Schema eben im Faktor W.

Alle die rein formalen Gesichtspunkte, mit denen die Erkenntnistheoretiker arbeiten, z.B. die Kategorien, die Urteilsformen, usw., gehen auf das Verhältnis zwischen S und W, gewissermassen auf die Verbindungslinien zwischen beiden: S═W, hinaus. Es lässt sich nun auch ersehen, in welcher Hinsicht unser Wissen absolut und in welcher Hinsicht es relativ ist. In Beziehung auf irgend ein W kann unser Wissen absolut sein, denn wir können gegebenenfalls sicher wissen, ob sich ein angegebenes Ziel mit den vorliegenden Mitteln erreichen lässt. Aber in weiterem Zusammenhang gesehen ist unser Wissen nur relativ, denn um zu erkennen, ob ein bestimmtes Wissen die absolute Wahrheit sei, müssten wir wissen, ob das korrespondierende W ein absoluter Wert wäre, und dazu besitzen wir noch kein Mittel. Sowohl die erkenntnistheoretischen Absolutisten, wie die Relativisten haben daher, jeder in bestimmter Hinsicht, recht. Beide haben wichtige Momente des Erkenntniskomplexes gesehen. Schematisch könnte man das Verhältnis so veranschaulichen: Irgend eine Korrespondenz zwischen einem S und einem W könnte man einen Erkenntniskomplex nennen: (S—W). Innerhalb des Komplexes gibt es absolute Konstellationen, von aussen gesehen aber hat der Komplex nur relative Bedeutung. Da aber ein solcher Komplex einen relativen Abschluss darstellt, eine Vollendung mit Hinblick auf den betreffenden W, möchten wir hier den aus der Erkenntnistheorie wohlbekannten Ausdruck 'Erfüllung' verwenden. Ein solcher Erkenntniskomplex stellt eine *Erfüllung* dar.

So lassen sich die verschiedenen Begriffe, womit die moderne Erkenntnistheorie arbeitet, in unserem Schema einordnen. Die scheinbare Unvereinbarkeit der verschiedenen erkenntnistheoretischen Gesichtspunkte beruht auf Verabsolutierungen.

Die viel diskutierte neue Sachlichkeit besteht nun darin, dass man den stets vorliegenden Zusammenhang zwischen S und W gesehen hat. Man hat durch Max Weber erkannt, dass unser Wissen nur technisches Wissen (im weiteren Sinne) ist. Sein Programm: Scheidung zwischen Sache und Wertung besteht nun eben *nicht* darin, dass man sich nur an das 'Objektive' hält, sondern darin, dass man die eigenen Wertungen so darstellt, dass alle ohne weiteres klar sehen können, dass es sich um Wertungen handelt. Daher der Ausdruck: *Scheidung* zwischen Sache und Wertung. Und hier eben kann man das Wesen der neuen Sachlichkeit sehen. Die alte Sachlichkeit bestand darin, *dass man mit S allein* operierte. Man suchte in allem und voll und ganz 'objektiv' zu sein. Dieses Streben beruhte natürlich auf dem Glauben, dass dies möglich wäre. Diese Illusion hat aber Max Weber endgültig zerstört. Wir wissen jetzt, dass die voll durchgeführte Objektivität eine Fiktion ist, wir wissen, dass Objektivität und Sachlichkeit darin besteht, dass man sagt: in dieses Material S, das ich Ihnen in systematisierter Form vorlege, liegt immanent der Wertgesichtspunkt W, den ich Ihnen hiermit klar angebe.

Die alte Sachlichkeit hat eine Verbindung mit *Suggestion*, die mit Hinblick auf soziale Probleme besonders wichtig ist.

Man sagt auch noch heute, dass die Suggestion 'unbewusst' ist, dass sie sich in die Seele hineinschleicht usw. Die Suggestion soll nach dieser Auffassung etwas durchaus Irrationales sein. Die teilweise sehr scharfe Diskussion darüber, ob die Suggestion rational oder irrational ist, hat noch nicht zu einem definitiven Resultate geführt.

Ich möchte daher eine Definition der Suggestion darlegen, die darauf hinausgeht, dass das eigentlich Suggestive der Suggestion etwas Rationales ist. Es ist eigentlich ein Gültigkeitsmoment, das suggestiv wirkt. Das Wesen der Suggestion lässt sich vielleicht von dem Logizismus her verstehen. Wie bekannt, legt der Logizismus die Systemidee seinem Objektivitätsbegriff zugrunde. Erkenntnis besteht nach dieser Auffassung darin, dass ein Systemzusammenhang etabliert wird. Etwas ist real, nur weil und soweit es in dem Systemzusammenhang eingeht. Wirklichkeit wird hier in Objektivität aufgelöst. Die sinnliche Erfahrung ist subjektiv, objektiv aber sind die logischen Relationen, die Denkzusammenhänge. Natürlich sind die verschiedenen logizistischen Denker weit über diesen Standpunkt hinausgegangen. Aber das interessiert hier nicht. Uns interessiert hier die Systemidee; und der Gedanke, dass System *als solches* Erkenntnis begründet, möchten wir als das Logizistische am Logizismus bezeichnen.

Der Zusammenhang zwischen System und Suggestion lässt sich nun daraus ersehen, dass 'System' gleichzeitig ein Ausschluss- und ein Einschlussmechanismus ist. Alles, was in den Systemzusammenhang eingeht, wird als real oder objektiv gestempelt, alles was ausserhalb des Systemzusammenhanges fällt wird als subjektiv oder zufällig gestempelt. Das Wesen der Suggestion liegt dann darin, dass im Bewusstsein eines Individuums ein Systematisierungsprozess zustandekommt, wo dann die suggerierte Idee als notwendiges Glied des Systemzusammenhanges hervortritt. Daher die eigentümliche *Affektfreiheit* der einzelnen Suggestion. Deswegen ist auch Suggestion in ihrem Wesen immer *Auto*suggestion. Der Systematisierungsprozess kann vom Suggestor ausgelöst werden, aber der suggestive Effekt liegt im Systemzwang im Bewusstsein des Suggerierten. Man sieht auch hieraus, dass der Suggestor nur in oberflächlichem Sinne 'Menschenkenner' zu sein braucht. Eine tiefere Menschenkenntnis ist nicht notig, um die Kunst der Suggestion bis zur Vollkommenheit auszuüben. Der Suggestor muss nur sehen, wo beim andern Systembruchstücke liegen. Da dies gewohnlich in der Nähe seiner Minderwertigkeitskomplexe ist, bieten sich für gewöhnlich keine Schwierigkeiten. Der Suggestor muss dann seinen Ausgangspunkt in diesen Systemansätzen nehmen, um den Systematisierungsprozess beim andern hervorzurufen. Es findet eine Logizierung der Psyche statt.

Der logizistische Mechanismus ist jedoch nur die äussere Einkleidung der Suggestion. Wir können ihn die Suggestions*form* nennen. Der Suggestions*kern* ist aber etwas Irrationales. Es fragt sich nun was. Wir nehmen an, dass der Suggestionskern eine *Wertung* ist. Durch die Suggestion versucht man einem andern Individuum eine Wertung aufzuzwingen. Hier liegt somit das Irrationale der Suggestion. Aber die logizistische Einkleidung ist durchaus notwendig. Wird die Wertung direkt hervorgetragen wirkt sie nur bedingterweise suggestiv. Ja sie kann, gerade entgegengesetzt, das andere Individuum in Freiheit setzen. Daher muss die Wertung maskiert werden, und dazu dient die logizistische Einkleidung. Alles Systematisieren muss irgend einen Centralpunkt haben, irgend einen Systemkern, der der feste Punkt der Systemrelationen ist. Diese centrale Idee ist immer irgend eine Wertung. Bei der Suggestion wird nun eine Wertung in einem Systemzusammenhang verborgen vorgetragen. Das Moment von Zwang, von Gültigkeit, das die Suggestion prägt, liegt dann in dem logizistischen Systemapparat, während das Unverständliche, das Unbegreifliche, das Irrationale der Suggestion in dem Systemkern, in der Wertung liegt. Die vollständige Definition der Suggestion muss demnach lauten: Die Suggestion ist eine als zwingende Gesetzmässigkeit maskierte Wertung.

Das dies möglich ist, beruht auf einem logischen Fehler des Logizismus. Damit überhaupt System Erkenntnis geben soll, müssen die unvollendbaren Relationen eingegrenzt werden. System muss daher ein System von idealen *gesetzmässigen* Relationen sein. Hier liegt die Verwechslung von Gesetz und Kausalität vor. Aber es ist eine sehr kühne metaphysiche Behauptung zu meinen, dass alles gesetzmässig bestimmt ist. Das aber alles kausal bestimmt ist, müssen wir annehmen. Es sei hier auf die bekannten Darlegungen von Heinrich Rickert hingewiesen. Kausalität ist eine wirklichkeitskonstituierende Form, Gesetzmässigkeit nur eine Denkform. Der Fehler des Logizismus liegt daher in einer Verwechslung von Gesetzmässigkeit und Wirklichkeit. Eine Suggestion ist daher eine als Gesetz maskierte Wertung. Wir sehen auch, dass ein Mensch, der einem andern Menschen etwas suggerieren will, die zu suggerierende Wertung als ein 'Gesetz' darstellt. Die alte Sachlichkeit stand nun in naher Beziehung zum Suggestionsmechanismus. Wir können, indem wir zu unserem Schema zurückkehren, sagen, dass die Suggestion darin besteht, dass das Schema S—W so verwendet wird, als ob es nur aus S allein bestünde. Man arbeitet mit dem Systemzusammenhang S allein, und man war bei der alten Sachlichkeit nicht darauf aufmerksam, das in jeder S immanent ein W liegt. In der Suggestion wird nun diese fiktive Objektivität bewusst verwendet, indem der immanente W mit absicht verschwiegen wird.

Von entscheidender Bedeutung wird nun diese Verbindung zwischen fiktiver Sachlichkeit und Suggestion, wenn wir uns den sozialen Theorien und Institutionen zuwenden.

Die Erkenntnis, die wohl jetzt als gesichert betrachtet werden kann, ist die, dass die verschiedenen ökonomischen und soziologischen Theorien immer auf Wertungen zurückgehen. Es liegt kaum eine Theorie in den Sozialwissenschaften vor, ohne dass der Wertungseinschlag von irgend einer Seite dargelegt worden ist. Es ist hier, wegen des begrenzten Raumes, leider unmöglich faktische Beispiele zu bringen. Wir verweisen aber auf Max Webers Lebenswerk. Wir können dann sagen: wenn ein Sozialökonom oder ein Soziologe eine Reihe Tatsachen zum System zusammenstellt (S), dann liegt in diesem System immanent irgend ein Wertgesichtspunkt (W), der bei näherer Prüfung immer klar angegeben werden kann. Demnach stellt der Ethos der Wissenschaft an den Forscher die Forderung, dass er uns seine Ergebnisse nicht als das quasi-objektive System S vorlege, sondern der neuen Sachlichkeit entsprechend, in der Form S—W. Und von hier aus erklärt sich nun die äusserst wichtige Aufgabe der *Philosophie*. Die Philosophie hat nicht die Aufgabe das empirische Material für S hervorzuschaffen, ja nicht einmal die Aufgabe die Systematisierung des Faktors S vorzunehmen. Aber die Philosophie hat die Aufgabe den immanenten W festzustellen und zu analysieren. Daher ist die Philosophie in unseren Tagen Wertlehre. Und eben dadurch sind die früheren grossen philosophischen Systeme für uns von grösster Bedeutung. Denn es zeigt sich immer wieder, dass der immanente W, fast immer irgend ein Wertgesichtspunkt ist, der von irgend einem der grossen Philosophen schon idealtypisch dargestellt worden ist. Wir haben in dieser Weise in gewissem Sinne die grossen metaphysischen Systeme zurückerobert.

Aber unsere Betrachtung lässt sich auch auf die sozialen Institutionen erweitern. Das systematisierte S kann auch irgend ein existierendes soziales System sein, das natürlich auch seine immanenten Wertungen hat. Hier sieht man die Realaufgabe der Philosophie. Sie hat die bestehenden sozialen Institutionen auf ihre immanenten Wertungen hin zu prüfen. Sie kann feststellen: in dieser sozialen Institution, so zu sagen in ihrem technischen Mechanismus, liegt die und die bestimmte Philosophie. In diesem, jedem sozialen S innewohnenden W, liegt das Sollensmoment, die eventuelle 'Verpflichtung' den sozialen Institutionen gegenüber.

Da nun die sozialen Institutionen Partialsysteme im Leben darstellen, glauben wir die Frage: 'Is the ground of political obligation always one and the same?' mit einem bestimmten *Nein* beantworten zu müssen.

Das Entgegengesetzte wäre erkenntnistheoretisch *fiktive Objektivität*, psychologisch *Suggestion* und politisch *Machtpolitik*.

THE PROBLEM OF KNOWLEDGE IN MODERN TIMES ITS TERMS AND ITS SOLUTION

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IT has become commonplace to look upon modern philosophy as identical with the statement and gradual development of the problem of knowledge. This problem is naturally inherent in all philosophy, it is never entirely absent from its investigations—the dominant part, however, played by epistemological questions in the last three centuries was unquestionably unknown to former ages. This state of things is universally recognized.

Opinions are much less convergent concerning another point of even higher importance, and that is, to ascertain the *outcome* and *result* of these labours and meditations of modern thinkers. The reason for this is partly to be found in the modern philosophers themselves. Not only are they mutually discordant, they are frequently inconsistent in themselves, often also unaware of the significance of certain of their own propositions.

A most pressing task would therefore seem to be, to attain a clear view on this matter. As historians we overlook the whole field of development; we can easily avail ourselves of the work done by our predecessors without sharing their inevitable limitations. Every philosophical problem brings with it the elements of its solution, and in the investigations that the thinker devotes to it there is always a positive content, whether he be conscious of it or no.

One of the fathers of modern philosophy, Descartes, in choosing universal *doubt* as a starting-point, directed all his efforts towards the *restoration of knowledge*. In doing so he, in fact, traced the programme for the whole epoch which he inaugurated.

In a spirit apparently directly opposed to that of Descartes, John Locke drew up the terms of the problem in a way characteristic of modern thought, and exercised an immense influence all over Europe. He was recognized as the promoter and continuator of empiric, sensualistic, naturalistic, positivistic tendencies derived from Francis Bacon and Thomas Hobbes, which gained universal preponderance in the eighteenth century. But in reality Locke was much more than a forerunner of Voltaire and the Encyclopedia. It would seem much more correct to look upon him as the legitimate ancestor if not the actual founder of *critical philosophy.*

In fact, the decisive features of criticism are already present in his system. One of them is the dogmatic conviction concerning the *essential limitation* of the cognitive faculties.

'If we can find out', says Locke in the Introduction to his Essay concerning the Human Understanding, 'how far the understanding can extend its view, how far it has faculties to attain certainty, and in what cases it can only judge and guess, we may learn to content ourselves with what is obtainable by us in this state.'

This is the aspect in which our problem will appear to a long series of thinkers. The general scepticism admitted by Descartes has been transformed and circumscribed in the notion of the *limits of knowledge*, and the necessity of discovering and fixing those limits is looked upon as the capital duty incumbent on philosophy. The problem can be resolved solely by understanding the *origin* of knowledge. This *genetic* point of view is an achievement of Locke's, which will prove to be productive of vast consequences. His answer is strikingly clear, and if it may not be in keeping with his intention of settling the limits of knowledge, that does not lessen its value.

'All ideas come from sensation or reflection', says Locke. And later he adds: '*These two* I say, viz. external material things as the objects of *sensation* and the operations of our own minds within, as the objects of *reflection*, are, to me, the only originals from whence all our ideas take their beginnings.'

Knowledge therefore is of double origin, internal and external, sensual and reflective, passive and active. This theory fully anticipates the one formulated a hundred years later by Kant, and it is even superior to it in so far as Kant was not to trust his own thought, and between these two complementary ideas introduced an intermediate class, namely, pure representation. On this point, by trying to correct Locke, Kant solely disturbs and confuses what in Locke's conception was thoroughly complete and conclusive.

The unquestionable progress realized by Kant lies in another direction. In his transcendental deduction of the categories which is to pass sentence upon the claim of rational notions to applicability to objects of experience, Kant, so to say, frontally attacks the problem of knowledge. Putting aside the partial solutions arrived at hitherto in his investigations, he states that the true function of reason consists in *synthesis*, in grouping the sensual impressions, systematizing them, disposing them in an intelligible order. This order is not arbitrary, but necessary, not contingent, but duly founded on a new principle which the mind introduces into the succession of sensations, by deriving them from *ideal centres* called *objects*. This is a truth radically misunderstood by the common consciousness; the source and basis of objectivity is not itself of objective origin.

Try as we will, we can never *compose* anything out of symptoms solely. Violent and overpowering as may be certain impressions, they can never constitute *experience* unless we understand them, unless we explain them by the action of *objects* on our receptive powers, and this is always the result of an *ideal construction*, of a spontaneous action or reaction of the spirit. The different categories and notions enumerated by Kant are only the particular forms of this essential process.

Herein consists the tremendous achievement of Kant, perhaps the most remarkable event in modern philosophy and the clue to its ulterior development. Vast as may be the domain of impressions and unlimited their variety, they can assume the character of *knowledge*, of an objective order discovered, of a reality revealing itself, solely through the medium of mind, of intelligence, of reason, which deciphers and interprets our impressions. That is the decisive solution produced by modern philosophy in response to the problem of knowledge.

The systems which sprang up with such extraordinary force and fertility under the immediate impulse of Kant—whether or not with his personal approbation is here of no consequence—and formed the great school of modern idealism, before venturing upon any metaphysical thesis were in the first place *theories of knowledge*, as Fichte notoriously named his philosophy (*Wissenschaftslehre*). The vast difference between them and the critical systems which had preceded, as well as the innumerable epistemological doctrines which followed—a difference which is all to the advantage of idealism—was simply this: idealism was a theory *of* knowledge, not a mere theory *about* knowledge.

Far from claiming privileges for itself philosophy here only demanded rights equal to those of all other spheres of research, rights expressed in the choice of an object of investigation and the development of particular observations into a system in accordance with the laws discovered in that object, not in obedience to any preconceived restrictions or preliminary directions. Fichte is vividly conscious of the significance of what he is undertaking in this sense: 'It is easy to remark', he says, 'that, when admitting the possibility of such a theory of knowledge in general, we must always presume, *that there really is a system in human knowledge.*' 'Knowledge in itself is *organic*', he says elsewhere.

Fichte's attitude towards Kant is entirely dependent on this point of view. Kant had pointed out the decisive influence of the intellect on the very formation of experience. But he had not gone beyond the extremely arbitrary device of drawing up a list of a dozen categories. Here Fichte's undertaking sets in. If we wish to study the intellectual activities, we cannot content ourselves with a *list* of notions, but must search for a *principle.* In order to discover what knowledge consists in, we must choose a sample of indisputable knowledge, an absolutely certain proposition, such as A = A. This evident fact, A = A, cannot take place in any other surroundings than a conscious *ego.* But the consciousness of an ego is inseparable from that of the *non-ego.*

This fundamental reasoning of Fichte's is frequently interpreted as a kind of renewal of Descartes's 'cogito ergo sum'. In reality it is certainly analogous but incomparably more advanced, for it leads Fichte on to recognize that contradictory notions, far from being the end of our understanding, are only its beginning, and if rightly understood become a motive power in the sphere of consciousness. In consequence the main effort of philosophy cannot consist in the avoiding of contradiction, but in the *overcoming of contradiction.*

The same idea is taken up by Schelling on a vaster scale and in a freer form. According to him the first achievement of human reflection is the splitting up of consciousness, which by nature was a continuity.

'Therefore mere reflection, especially when it subdues him *totally*, is a spiritual illness of man, which kills his higher existence in the germ, kills his spiritual life, that springs from identity, in the very root.' The restoration of the natural unity of the consciousness appears here as the most important concern of philosophy. Schelling applies this view to the decisive question. Neither the subjective nor the objective side of knowledge can really account for its true nature, which is essentially the absolute interpenetration and perfect balance of the subjective and objective.

The various observations and theories of his predecessors were, doubtless brought to the highest degree of maturity by Hegel, systematized and combined with admirable perseverance and ingenuity. He fully maintains the principle of unity absorbing contradiction, and, following up its consequences, points out as the necessary goal of philosophy that it should restore to abstract notions their true nature, which is *concrete*, tied up and indissolubly linked together as they are on the basis of their *correlativity*. This basis enables Hegel definitely to remove the biggest obstacle to free development of thought set up by criticism. The *limitation* of the mind to any sphere is a delusive undertaking, not only because there are no definite limits to what is capable of development, but chiefly because the very consciousness of a limit is a proof of *superiority* in relation to the limit.

It is obviously impossible in a few sentences to give even an idea of the vast scale on which the problem of knowledge was treated by the idealists of the early nineteenth century. But the features we have been able to point out are sufficient to show, that not only was the problem essentially resolved by the moderns but that the sphere of cognition was explored and exploited in a way almost undreamt of in former centuries.

Notwithstanding its memorable achievements idealism faded away, and with it modern philosophy underwent an indisputable eclipse. The general current of the times directed towards the practical conquest of the world may be partly responsible for this. Partly also we must admit that, having accomplished its programme, modern thought found itself facing a blank. Towards the middle of the nineteenth century a great Polish thinker, the only man of genius among the disciples of Hegel, himself full of forebodings of future developments, Cieszkowski, thus characterized the intellectual position of his time: 'The most strict and rigorous speculation remains sterile so long as it is not fecundated by *living and creative intuition*.' As a source of such intuition Cieszkowski doubtless looked forward to a future renewal of the religious consciousness of humanity. Perhaps the mere glimpse of such a possibility has been the reason why in bygone years the outlook on things concerning philosophy has been more hopeful in Poland than elsewhere, and the study of the great German masters even more persevering and diligent than in Germany itself.

In any way, the historic stride of philosophy is one that covers long spaces. The destiny of her great achievements and conquests cannot be decided by one or two generations. Plato has been the spiritual master of 20 centuries, Augustine the initiator of 40 generations, the influence of Aristotle was restored after an oblivion of a 1,000 years. In looking back on the great epoch, which historically speaking has only just come to a close, long ages to come will be obliged to confess:

ὑμετέρου οὐκ ἔστι γένεος βασιλεύτερον ἄλλο.

SOME REMARKS CONCERNING THE PRINCIPAL METAPHYSICAL IMPLICATIONS OF RECENT PHYSICAL THEORIES AND POINTS OF VIEW

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THE question put before this Session: 'Are recent advances in Physics of metaphysical importance?' I for my part should feel inclined to answer in the affirmative. Although metaphysicians are—or ought to be—accustomed to play with startling possibilities, I think nevertheless that recent physical theories and points of view deserve their full interest because they seem to imply radical changes in—or rather destructions of—current opinions about the world and its nature in at least two or three fundamental respects, namely, in respect of the *structure* of the world, in respect of the *stuff* of the world, and—according to some thinkers—in respect of the *reality* of the world. These implications of recent physical ideas I shall now endeavour to elucidate by a few remarks, stating beforehand that I am taking the word 'recent' in a narrow sense as only referring to the discoveries and theories relating to the new quantum theory, but not to the theory of relativity which may be considered as only a further development and crowning of the ideas of the older or 'classical' physics.

To classical physics—also in its highest developed, Einsteinian, form—the structure of the physical world was such that the behaviour of every element and the course of every process was determined according to the law of causality, which law in this connexion can be formulated as follows: Given the constellations and the impulses of the elements of a closed system at one instant *or* the constellations alone at two different instants, then it is possible by help of the physical laws of nature to calculate the state of the system at any other arbitrary instant. If the physical world as a whole can be conceived as a closed system, then this law of causality expresses what is meant by the phrase: 'the physical world is a wholly determined system'. As is well known, however, this view has in recent times been subjected to severe criticism from many distinguished physicists, among whom F. Exner was—so far as I know—the first to open the battle. In his *Vorlesungen über die physikalischen Grundlagen der Naturwissenschaften* he maintained that all physical laws are probably of a statistical character, i.e.

that they relate only to the behaviour of multitudes, and depend on the fact that although the behaviour of each individual may be extremely uncertain, average results can be predicted with confidence. The macrophysical phenomena our gross sense-organs are showing us are in reality collective phenomena which on closer investigation appear to be average effects of vast numbers of microphysical individual particles and processes. And the laws which the macrophysical phenomena follow are only expressions of average results whose regularity might well be compatible with a great degree of lawlessness of the microphysical individuals. The macrophysical regularities therefore do not imply microphysical regularity, whereas microphysical irregularity according to the law of great numbers will imply macrophysical regularity with a probability which, in consideration of the great number of individuals concerned in macrophysical phenomena, will generally approximate very near to certainty. So far as the physical laws can be conceived as statistical regularities we need not presuppose that the underlying microphysical elements are causally determined, but can content ourselves with a weaker assumption intending merely to guarantee a statistical determination—thereby getting a very interesting and surprising apprehension of the world as at bottom consisting of fortuitous elements. On the other hand, nothing so far would prevent us from believing that the elemental processes are causally determined, although it is practically impossible for us to calculate them individually. Indeed, some of the most eminent physicists—among them Planck and Einstein—still adhere to this view in spite of the fact that the new quantum theory has made great inroads here. The fact is that the indivisibility of the quantum puts a limit to the degree of exactness with which the position and momentum of a microphysical particle can be determined. As shown by Heisenberg there exists an Uncertainty Relation according to which the product of the uncertainties which unavoidably belong to the determination of the position and momentum of a particle will always be of a finite value of the same order as Planck's constant, the famous h. We can determine the position *or* the momentum with ever-increasing exactness, but the more the exactness of the determination of the one increases, the more the exactness of the determination of the other decreases. In other words: according to Heisenberg we never can afford the determinations which are necessary for the applicability of the law of causality, and therefore the law seems to lose any importance—some would even say any sense. Even if we assume that it will never be possible to divide a quantum there seems, however, still to be a possibility for maintaining the importance and sense of the law of causality. As Planck has remarked, it is not necessary that both positions and momentums of the elements of a system shall be determined in order that the behaviour of the system shall be determined—it will do equally well if the constellations of the elements at two different instants can be determined with any prescribed exactness, and to this the Heisenberg Uncertainty Relation seems no hindrance. However impossible it may be *in practice* to determine the constellations in one instant only of the molecules in a cubic centimetre of a gas, it is not impossible *in principle* to do it, and we can, according to Planck, continue to believe in the reign of causality in the microphysical as well as in the macrophysical world, even if we cannot prove that this belief is a true one. It is, however, with unmistakable emphasis maintained by Bohr, Heisenberg, Jordan, and others that the new quantum theory has not only made the law of causality superfluous and inapplicable but that it has directly demonstrated its being without sense. So far as I have succeeded in grasping their argument it hangs on the assumption that our inability to afford the said determinations is not merely a temporary or a practical one but as following from the nature of the case of a permanent and fundamental character. A demonstration of the inapplicability in principle of the law of causality would, however, to my mind as little prevent its having a reasonable sense as the non-existence of the ideal objects with which several physical theories are operating makes these theories senseless. And it therefore seems to me that the concept of strict causal determination remains both an important methodological ideal for approximation and a thinkable metaphysical possibility—even if recent discoveries and theories bear witness of an acausal structure of the microphysical phenomena. For my part I should not be too surprised if the statistical conception of the microphysical world predominant in present-day physics should reveal itself as only a reflection of the fact that recent physics has reached a stage of development where statistical methods work especially well, just as the causal conception of the world predominant in the physics of the last half of the late century seems to have been a reflection of the fact that differential equations were then working very well throughout the greater part of physics. The fact that one and the same phenomenon may often be considered from one point of view as an individual, and from another as a multitude shows that there is no contradiction in the simultaneous working of the causal and the statistical methods at different levels of reality. It therefore seems difficult to draw any reliable conclusions concerning the structure of reality from the working of the one or the other of the two methods mentioned, but a definitive solution of the problem appears to depend on an investigation of the nature of the physical elements themselves, concerning which I am now going to make a few remarks—or more precisely concerning the question: 'What can recent physics teach us about the nature of the microphysical elements which constitute the stuff of the physical world?'

In order to discuss this question I must recall to you that the newer investigations concerning the relations between matter and light have led to a series of discoveries that seem to show that the elements of which the physical world is presumably built have wave-properties as well as particle-properties. In other words: the physical elements seem to be neither waves nor particles but 'wavicles', to use the name A. S. Eddington has framed in his Gifford lectures. If names could solve problems, a great problem indeed had been solved by this happy linguistic invention. But alas, the name 'wavicle' is not a solution, but only a condensed expression of the difficulty which just consists in the apparent impossibility of uniting the wave-properties with the particle-properties in one single idea. Technicalities set aside, I think the philosophical difficulties here met with are of two sorts: *first* the lacking of an intuitive insight into the nature of a 'wavicle' or the lacking of a perspicuous model thereof—and *then* the fact that it seems very difficult to make a unity of the theories concerning the wave-properties and the theories concerning the particle-properties.

The first of these difficulties I think is insurmountable, and the tendency among the physicists seems also to go in the direction of giving up the problem. This resignation with regard to acquisition of intuitive insight and construction of perspicuous models seems to me, however, not to be unbearable considering the fact that we have no reason whatever to expect that the microphysical elements should resemble the macrophysical phenomena which we perceive by our gross senses and are able to picture in our fantasy—*and* in view of the fact that the absence of such insight and models has no scientific or practical consequences whatever —*if* only the second of the difficulties mentioned can be surmounted. With regard to this we are, as is well known, presented with two theories or groups of theories, viz. the de Broglie-Schrödinger wave-mechanics on the one hand and the new Heisenberg-Jordan-Dirac quantum theory on the other, which theories emphasize respectively the continuous-wave point of view and the discontinuous-particle point of view. As shown by Jordan, Klein, and Wigner the two theories are, however—apart from certain limitations—mathematically equivalent, i.e. they can be transformed one into the other and vice versa, and it is thus demonstrated that—seen from the standpoint of the formalistic quantum theory—the particle-concept as well as the wave-concept are only two different ways of conceiving or picturing a single physical reality having wave-nature as well as particle-nature. Wave-concept and particle-concept are what Niels Bohr calls 'complementary' concepts, i.e. each of them reveals an indispensable side of reality, and therefore they must be mutually consistent, but the application of the one excludes the simultaneous application of the other, and they cannot be reduced to specifications of a single concept of a more general character. Just this last point, however, seems to my mind a little unsatisfactory from a philosophical standpoint, however well it may express the present stage in the development of physical theories. In all parts of human knowledge we find ourselves endeavouring to obtain not only a complementary but also a systematic unity, and this systematic unity claims more than absence of contradictions between complementary points of view—it claims, besides, the reduction of the theories to a common axiomatic basis. Whether such a reduction is possible with regard to waves and particles, or whether we shall have to content ourselves with the complementary view, which Bohr, however, considers a general feature of all human knowledge, is a question more of epistemological than of metaphysical interest, and I do not intend going deeper into it here. But whatever the outcome may be I think it safe to state that recent physical discoveries have made it very unlikely that the microphysical elements can ever be conceived as miniature models of such things as we are acquainted with in our macrophysical experience. Physics thus has become a science of an exceedingly symbolical character, the principal metaphysical outcome of which chiefly seems to be that all the ideas so far formed concerning the nature of the elements of the physical world have broken down, and that we are left at present with a symbolism that works surprisingly well but whose proper meaning, granted that it has any, nobody has as yet revealed. Not only is it at the present time impossible to tell which sort of entities the physical symbols stand for, but it is even uncertain whether they stand for any specific physical entities whatever. They seem partly to stand for mathematical operations and concepts only, and partly perhaps for complexes of or relations between our sense-data. Under these circumstances I should think the prospects good for a kind reception of a theory of the 'wavicle' constructed on principles analogous to those which Bertrand Russell has crudely sketched somewhere by defining an electron as 'the various disturbances in the surrounding medium which, in ordinary language, would be said to be "caused" by it'. Having only 3,000 words at my disposal I dare not, however, here go farther into this line of thought, but shall conclude with a critical remark concerning the question: 'Have the microphysical phenomena objective reality?' in so far as this question has been placed in a new aspect by recent physical theories.

This question has been emphasized in connexion with the fact that it is at present impossible to investigate the microphysical processes without disturbing them at the same time. These processes are so fine that our finest means of investigation in comparison with them are so gross that they inevitably cause a disturbance of finite value in them. We therefore cannot determine the processes as they are going on 'objectively', i.e. as they presumably would run if we had not investigated and thereby disturbed them. And as this, according to the quantum theory, is a matter of principle it is regarded as a manifestation that the conception of these processes as existing 'objectively', i.e. independent of the subject who observes them, is untenable. The fact that it is impossible to distinguish between the physical phenomena and our observation of them is, according to Bohr, placing us in a situation similar to that which we know from psychology, where introspective observation of the mental phenomena often disturbs them. In other words: it seems impossible to separate the subjective moments in the observation from the objective ones, and the very existence of an independent objective physical world has thus become to a certain degree problematic.

In order to clear up the questions arising in this connexion I think it necessary to distinguish between two of the many different meanings of the words 'subject' and 'object'. By the word 'object' we may understand anything of which we are or may be conscious, and by the word 'subject' the correlative of this: the form of consciousness with its categories, forms of apprehension, or what we like to assume in it. These two meanings of the terms 'subject' and 'object' I will call 'the epistemological subject' and 'the epistemological object'. Among the epistemological objects we are, however, drawing a narrower distinction between subjective and objective phenomena, indicating thereby respectively phenomena that in some manner are dependent on the existence of our individual organisms, and phenomena that are independent thereof. In this sense all our observations considered as psychological processes are subjective, but it is generally assumed that at least some of the features of the observed phenomena are independent thereof and therefore objective in the narrower sense. To these objective phenomena belong our means of investigation as well as the objects that are investigated by the help of them. Until the discovery of the Compton-effect and similar phenomena it was assumed that we could—at least in principle—always make the inevitable disturbances caused by the means of investigation so insignificant that they could be neglected, and the observations considered as revealing the objective phenomena essentially undisturbed. But now it has appeared that this assumption fails in regard to microphysical phenomena. Nevertheless it seems to my mind rather rash to infer that the microphysical phenomena cannot be considered as existing independent of the observing subjects. What we can learn from the Compton-effect and related phenomena seems only to be, that the means of investigation interferes with the phenomena to be observed in such a manner that it is impossible for us to determine with exactness the positions and the momentums of the tiny particles. But this interdependence between the means of investigation and the microphysical phenomena is an interdependence between two sorts of objects in the narrower sense, and not between an object on the one hand and a subject on the other. It is not our *seeing* the electron that disturbs its path but the collision between it and a light-quantum. And although this collision is a necessary condition for our seeing the electron we have no reason whatever to think it influenced by our seeing it—indeed, the collision would presumably have happened in quite the same manner if we were blind or had turned our back to it instead of looking at it. At least I cannot see that the Compton-effect would entitle us to draw further conclusions concerning the reality of the microphysical phenomena, and I therefore think that we have now as before no more and no less reason to assume an objectively existing physical world, although we cannot tell at present what it looks like, but only that it probably does not look like anything we have hitherto assumed it to look like.

To sum up: recent advances in physics seem to me not so much to imply definite metaphysical views as to destroy several current prejudices. If we are thus left with great metaphysical problems unsolved, new horizons for metaphysical speculation open before us. Yet it must be said that the crisis of recent physics should warn us against underrating the difficulties involved in these matters, the proper handling of which would, however, lead us into epistemological reflections lying outside the scope of the present Session.

OUR COMMON NOTIONS AND THEIR DIALECTIC MOVEMENTS IN THE HISTORY OF PHILOSOPHY

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IT is often maintained that the dominating problems in the history of philosophy are rooted in pre-scientific, common conceptions of the world and of ourselves, conceptions which have unintentionally and unreflectingly arisen and in this somewhat vague sense may be termed 'natural'. It is further generally agreed that these conceptions give rise to problems because they are theoretically unsatisfactory. It is coming increasingly to be realized that our common notions, which constitute our system of 'natural' categories, involve contradictions such that without thoroughgoing revision they are necessarily devoid of scientific value. This was shown quite early in regard to the 'natural' ideas of cause and of power, in regard to the idea of a thing and to the ideas of self and soul as entities persisting through change.

In spite, however, of the force of these criticisms, the power of these 'natural' conceptions in our everyday thought is so strong that they still give rise to unreflecting common-sense reactions even in philosophy, and even those philosophers who consider themselves to have abandoned them are generally in fact more or less still under their influence. One is not seldom apt to see in this persistent vitality a sign of their truth. Unreasonably, since it would be a peculiar coincidence if general conceptions, which have emerged without theoretical intention, were theoretically incontestable.

But although both earlier and later philosophies have adopted a critical attitude towards 'natural' conceptions, it is relatively seldom that we have set ourselves the task of analysing them with any great exactitude. Nevertheless, they are of such great interest in themselves that, independently of their truth-value, they may justly claim to deserve analysis. On account, however, of the nature of the material, such analysis involves considerable difficulties. It is, for example, neither sufficient nor satisfactory to try only to determine the content of one's own conceptions. Even if we take these as a starting-point, it is necessary to check and verify our conclusions in regard to them by reference to data derived from independent sources. Such data are afforded by the history of philosophy. If it can be shown that dominating problems and theories arise from and find their explanation in conceptions which, even if they are criticized and rejected, still unconsciously in different ways determine the development of our thought, then we are justified in seeing the influence of what I have called the system of 'natural' categories in these fundamental and relatively common and persistent conceptions. It is, then, in the history of philosophy that we shall find our chief material for the investigation of the system of 'natural' categories.

Such an analysis should equally contribute important material for the understanding of the development of notions and problems in the history of philosophy. When we unreflectingly use our 'natural' conceptions, we do not notice the contradictions they involve. To disentangle and expose them is, indeed, the reverse of 'natural'. It has, however, to some extent always been the task of philosophic reflection. If, however, it is the case (and in the history of philosophy it usually has been the case) that in his philosophizing the philosopher is still dominated by the 'natural' conceptions, which continue unsuspected to determine his thought-development, then there arises a 'natural' dialectic, which in the case of different philosophers, and even in the case of one and the same philosopher, can while maintaining an apparent consistency lead in different directions.

One of the 'natural' conception-complexes which from the beginning of philosophy right down to our own day has determined a dialectic of thought, is the whole conception of time and of the time series. In respect of this conception-complex we are, as it seems to me, peculiarly inclined to attribute a theoretically valid meaning to what is in fact nothing more than an unreflecting 'natural' conception. Even allowing for the fact that one often distinguishes between immediately experienced 'psychological' time and objective, scientific time, yet immediately experienced time, what one might call one's 'natural' time-conception, is nevertheless regarded as a reality, as the actual form of our inner life, nay, sometimes as actual and real time. This is the case, for example, with regard to our general notions of present, past, and future. These notions are so constitutive of our 'natural' conceptions of the world and of ourselves that we tend inevitably to infer that they represent something real. Analysis, nevertheless, seems to compel us to acknowledge that they are not homogeneous conceptions, but involve serious contradictions.

Suppose that we define the notion of 'present' as standing for a peculiar unanalysable character, for the 'perceived' or 'the perceivable', or for something that has a certain relation to our will, or for something else; then, if the content of our conception of 'the present' is something real, we should be able to assert in all circumstances that 'the present' is that which is or has this character, which I will call x. Then in a time series a certain member, which is represented as 'present', will be represented as x. The difficulty, however, arises that, although only one member ought to be x, yet other members are also x. To this it is answered, 'In fact they *are* not x, they only *have been* or *are to be* x'. The proposition 'one member only is x' must then be interpreted in the present sense in contradistinction to the past and future. It means, in fact, one member is *now* x. An infinite regress is here involved, and it is involved quite independently of the meaning, whatever it may be, that is given to the concept of 'the present', always provided that the concept of 'the present' is taken to stand for something real.

Nevertheless, although it cannot in fact be anything real, it is obvious that something is *represented* by the notion of 'the present'. Only one member of a time series *is* Now, and only this member *is* and *is something*. Other members only have been or will be respectively. By 'the present', then, it seems that we intend to convey the notion that a particular member of a time series is the only real. Nevertheless we must concede that whatever is imagined as preceding or following something real is thereby apprehended as real. Thus the past and the future are not simply and solely unreal, yet they are excluded in time from the real and are thus both not real and real—they have been or will be respectively.

So far the conceptions of the past and the future are analogous, yet on further consideration differences emerge. The past is a definite series of events which precede *Now* and thereby have such reality-unreality as is expressed by the phrase 'they have been'. The future, on the contrary, is not conceived as a definite series of events which, as it were, are waiting to become present and real; it is indefinite. The present being the real, our notion of reality forms itself in terms of *Now* and the future becomes this *Now* indefinite. The future is not at this moment nor at this moment will it decidedly be one of the different alternatives; equally it is not at this moment, nor at this moment will it decidedly be one of two contradictory opposites. After the present *Now* there is *now* nothing, but also after the present *Now* there is *afterwards* something and we thus have a new *Now* as well as a new time relation. Succession is apprehended as a Becoming. That which is *afterwards*, then, is on the one hand only a certain event, something definite; but equally on the other hand it is the time relation itself, the relation that is between the present *Now* and that which succeeds. Thus something definite, as a member in time series, is in itself a 'Succeeding'. The previously unreal and logically indefinite future *is* afterwards and is something, and its reality and logical content is just its own Succeeding. Succession apprehended as a Becoming *becomes* in fact itself. Time passes along itself and nothing becoming something.

This line of thought thus leads to Heracleiteanism. Every moment in a time series is itself a transition, a flowing, and, as Plato pointed out, it is no longer possible to make a positive statement about anything, since everything is equally its opposite.

One is therefore led from the same starting-point and with equal consistency into Platonism. In succession, represented as a Becoming, there is something which, beginning by not being real, later is real. It follows that that which is simply and solely real, is not in time; it does not appear and disappear, but is eternal. Similarly that which is apprehended as becoming is first indefinite and then definite. It is something indefinite now which only in the future becomes definite. But the objectively indefinite, that which *is* neither in one way nor in another is contradictory. The conclusion is the same; succession, in so far as it is a Becoming, is not real, and the real is eternal.

This contrast between the conclusion of Plato's line of argument and the modern form of Heracleiteanism shows very interestingly how thought, starting from the same initial premiss, that is to say, from the same conception of succession, can consistently be led in different directions. Plato argues that since succession apprehended by him as a Becoming involves contradictions it cannot be real, and the real is therefore eternal; modern Heracleiteanism that, since succession apprehended as a Becoming involves contradictions, distinctions being impossible, the real cannot be apprehended by the intellect.

From the same 'natural' conception arises the contradiction between indeterminism and determinism. Indeterminism emphasizes the fact that 'the present' is the only thing that is real, and the fact that the future is *now* indefinite. The future is one of different alternatives, but it is as yet indetermined which one of them it is; it may be any one of many. Indetermination, and thereby possibility, are thus regarded as objective, and the future is not objectively determined either in one way or in another.

For the determinist, also, the future is not real; only the *Now* is real, and his notion of reality forms itself in terms of *Now*. But for him, since it is always *one* and only *one* definite event that follows on the *Now*, it is *now* determined what the future is to be; thus only one definite event is possible..

The determinist thus emphasizes that the future necessarily is or necessarily will realize one of two contradictory alternatives, and that neither before nor afterwards can it be objectively indetermined which one of them it is. For him, therefore, it is *now*, a fact that the future will be in a certain way, and the future is thus predetermined.

On the one hand the 'natural' conception that is the presupposition of both points of departure implies that the future is *now* indefinite; on the other it implies and can be made to justify the conclusion that it is *now* determined what the future is to be.

If, emphasizing still more the indeterministic indefiniteness involved in the idea of Becoming, we insist that the future is *now* neither one nor the other of two contradictory alternatives, that it is not *now* determinately anything, the future has no logical content at all. It follows that the future is neither one nor is it several possibilities. Time reshapes itself in each fresh *Now* and thereby realizes itself in a content which was previously neither the only possibility nor one possibility among several.

From the same 'natural' conception emerge the different views of the notion of cause as determining Succession, which have played such an important part in the history of philosophy and have given rise to so many opposite lines of thought. After Now, there is *now* nothing; yet *afterwards* is something after Now. Thus that which is afterwards, is at the same time a certain event, something definite and the relation to what succeeds of *this* event. The definiteness in a time series is flowing forward; thus the previously indefinite becomes definite and is determined by the preceding as moving forward.

But, while this conclusion is that which, perhaps, emerges most naturally from the given premisses, others may with equal justification be drawn. For example, at first is something indefinite, potential, existing only as an Aristotelian materia. Later it is actual and definite, arising from and determining the preceding potential. In so far, therefore, as the notion of cause involves principally the *determination* of an effect, the succeeding may be regarded as the cause. For, since the prior indefinite something becomes later definite, the later definite that which succeeds may be regarded as thereby determining the earlier indefinite. In Succession a previously indefinite and potential materia becomes actual and definite. Thus the cause is the succeeding, and it determines the preceding. The teleological attitude to phenomena naturally incorporates this point of view. According to Finalism the succeeding determines in just the same way as a purpose may be said to determine. The finalist has, then, in this very thought retained the more natural way of regarding the preceding as also the determinative, that is to say, as the cause, the purpose, or the succeeding being thought of as determining only in the sense of being something striven for, and thereby ideally given in the striving.

With most philosophers these instances of dialectics arising out of the traditional 'natural' conceptions have of course been unconscious. There are, however, times when a continuous philosophic development has culminated in the presentation in clear-cut antitheses of the problems to which these conceptions give rise; it is at such times that the previously unconscious working of 'dialectics' normally receives attention. Already Aristotle is to a certain extent conscious of it, but only in so far as, when a conception in a dialectic has been changed, and when one train of thought has led insensibly into another, he assumes that the same word has been used with different meanings. In many instances, then, he unwillingly lets the changed meaning replace the original one, when the latter is required but nevertheless is not applicable. It is, of course, Hegel who is most aware of the 'dialectics'. The fact that he could still propose to make dialectic the method of science proves, however, that he was still under the domination of traditional ideas. Nevertheless his method makes it possible for him to avow the contradictions and leads him to try to expose them in the very ideas with which he proposes to construct his reality.

Finally, I would suggest that the task which chiefly lies before modern phenomenology is that of analysing those 'natural' conceptions we unreflectingly assume and which, therefore, are just something that immediately appears to us. In phenomenology it is chiefly the psychological ideas that are analysed. When, for example, I 'naturally' assume that I see something, or perceive something, then what in this 'inner perception' I unreflectingly assume is just such a 'natural' idea, an idea which does not in the least need to correspond with the actual psychic condition which is present in me, and which—in association with physiological facts—is the cause of my spontaneously apprehending myself as perceiving. It is just this 'natural' idea of perception which in epistemology has played as great a part as 'natural' time conceptions in metaphysics, and which like them has given rise to opposite developments of thought; like them also it has proved on analysis to be unsatisfactory. But if we further suppose that what we instinctively assume and intuitively apprehend is not these 'natural' conceptions, which may be in themselves disconnected and theoretically unsatisfactory, but ideal essences which are the prerequisites of science, then our analysis will itself be partial and distorted, since, when attempting it in the belief that the essences are valid, we shall in fact be unconsciously embarking upon a reconstruction undertaken in order to remove the contradictions.

It seems to me desirable that we should—more frequently than we have done in the past—make it our task to analyse, in the light of the material supplied by the history of philosophy, our 'natural' conceptions, and in our interpretation of historical problems and theories attach greater weight to the part that these 'natural' conceptions have played in the history of philosophy through the dialectics to which they have inevitably given rise.

LA PHILOSOPHIE DU LANGAGE

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UNE philosophie du langage est-elle possible?

On l'a proposée dans le temps, mais on a cru y renoncer, en affirmant qu'une classification de mots selon leur signification serait une impossibilité.

C'est qu'il fallait d'abord que certaines notions philosophiques et scientifiques fissent leur apparition, ou au moins que certaines notions anciennes prissent des sens nouveaux, comme ce fut pour le mot *valeur* en philosophie, *évolution* en science, etc., pour qu'une coordination du langage soit rendue possible.

Mais il y a encore quelque chose.

C'est que la langue est plus exigeante dans sa coordination que toute autre branche de nos connaissances. La langue n'a pas à sa base, comme la science, une hypothèse. Les mots primitifs et fondamentaux de toute langue ne sont que des affirmations précises sur le monde donné dans ses modalités de manifestations.

Alors, dès qu'on essaie de faire une coordination des mots d'une certaine langue, on s'aperçoit que pour y parvenir, on doit renoncer dès le début à toute théorie philosophique ou scientifique, à toute vue personnelle ou acquise, et qu'il faut se soumettre complètement à ses indications. Souvent un seul mot montre la voie à suivre.

Mais une fois les mots étant mis à leur place, on constate qu'il n'y a pas une seconde manière de procéder. Il ne s'agit donc que de suivre le fil exigé par la langue même.

La langue est d'une stabilité étonnante, et cette stabilité reste la même, dans ses grandes lignes, pour n'importe quelle langue.

Un seul exemple suffit pour tout ce que nous avançons jusqu'ici. Les mots *jour* et *année* nous montrent des phénomènes astronomiques, qu'il faut mettre à leur place, dans la coordination, à côté des autres mots qui indiquent les phénomènes terrestres de cette nature, tandis que les mots *heure* et *semaine*, etc., restent des notions conventionnelles, qu'on doit placer à côté des autres notions indiquant des utilités sociales.

Passons maintenant aux constatations:

Le langage nous montre d'abord, et d'une manière absolue, que le premier et le plus général des mots, c'est le mot *être*.

L'être, au point de vue du langage, c'est tout ce qui nous paraît, d'une manière ou d'une autre: l'affirmer, c'est le constater par les sens.

Le langage emploie aussi le mot *non-être*, mais sans indiquer son acception philosophique ou scientifique; vu que la langue n'est, dans son ensemble, que le résultat de l'affirmation ou de la négation de l'être et de ses manifestations; déterminées ou caractérisées par la pensée.

Déterminer l'être, c'est simplement l'affirmer à l'aide des sens; caractériser l'être, c'est toujours l'affirmer, mais indirectement, par l'une ou par plusieurs de ses manifestations. Cependant, déterminer ou caractériser l'être, c'est en même temps affirmer son *existence* et sa *valeur*: tout ce qui existe a une valeur, tout ce qui a une valeur existe pour nous.

L'existence c'est ce qui nous paraît de toute évidence, sans qu'on la puisse nier par les sens.

Observons, en passant, que ce sont les sens, et non pas la pensée, qui affirment pour l'esprit l'existence du monde donné; lui prêtent l'existence.

La valeur c'est ce qui nous paraît comme prenant consistence, toujours par nos sens, mais qui reste sujette à nos états affectifs, donc plus ou moins changeante pour nous.

Le langage nous montre ensuite que déterminer l'existence de l'être, c'est affirmer son *état* et son *devenir* et, par là, *la substance* et *le phénomène* d'une part, *l'espace* et *le temps* d'autre part; tandis que le caractériser, c'est affirmer ses particularités d'être et de manifestations: ses *formes* et ses *changements*, ses *causes* et ses *effets*, etc.

D'autre part, affirmer la valeur de l'être, c'est affirmer *l'utile* et *l'inutile* et, par là, *le nécessaire* et *le nuisible*; *l'absolu* et *le relatif*; *le permanent* et *le contingent*; *le déterminisme* et *la liberté*.

Tous ces dualismes d'existence et de valeur, révèlent des rapports stables entre l'état et le devenir de l'être: le réel des choses, constitué par *la nature* et *l'être naturel*.

La nature — matière et énergie — présente des phénomènes de *stabilité* et de *mouvement*.

L'être naturel — *inorganique* et *organique* — présente des changements de nature externe, et des transformations de nature interne, en vertu de la loi générale de l'agrégation et de la désagrégation de la matière.[1]

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[1] Nous le répétons: il ne s'agit pas ici des théories philosophiques ou scientifiques. Nous montrons seulement la manière dont une coordination du langage devient possible.

Pour l'être organique cette loi prend le caractère particulier de *la vie* et de *la mort* individuelle.

C'est la génération qui lui conserve le caractère dualiste: *individu* et *société.*

L'être individuel se manifeste et prend un caractère nouveau par *la sensation organique*, de nature interne, et par *le mouvement*, de nature externe.

La sensation paraît comme une manifestation organique passive, mais avec une puissante tendance de passer à l'état actif. Les sens sont, par degrés, passifs et actifs à la fois.

Dans ce dernier état, d'activité, ils deviennent des forces de réaction exercées sur la contrainte matérielle de l'existence, en déterminant des états appelés psychiques: la sensation devient *sensibilité.*

C'est le passage du passif à l'actif, du déterminisme à la liberté.

La volonté paraît donc comme une réaction de la sensibilité.

Cette réaction constitue d'abord une première manifestation de vie individuelle volontaire, caractérisée par *la vivacité* et *la mollesse* organiques, et qui se manifeste par *l'impulsion* et *le penchant*, de nature psychique, à la suite d'une *excitation*, ou d'un *apaisement*, de nature physique, provoqués par le dehors.

Le tempérament paraît comme état organique.

Une vie affective paraît à côté de la vie volontaire, en étroit rapport avec elle.

Elle est caractérisée par *le plaisir* et *le déplaisir*, organiques d'abord, psychiques ensuite.

Le dualisme du plaisir et du déplaisir sert de critérium pour la classification de tous les états affectifs de l'âme — de même que la mollesse et la vivacité caractérisent les manifestations volontaires.

La vie affective se manifeste par des phénomènes psychiques: *la joie* et *l'affliction*; par des phénomènes physiques: *la gaieté* et *la tristesse* et, d'une manière organique, par *la disposition* et *l'indisposition.*

De même que la vie affective, une vie émotive prend naissance à côté de la vie volontaire, ayant pour critérium *la tranquillité* et *l'inquiétude.*

Les phénomènes psychiques de la vie émotive sont *le souci* et *l'indifférence*; les phénomènes physiques: *l'agitation* et *le calme*, les manifestations organiques: *l'impressionnabilité* et *l'impassibilité.*

La passion paraît comme un résultat des émotions fortes.

La vie intellectuelle, manifestée par l'intelligence, a la même source.

C'est une réaction de la sensibilité sur elle-même, déterminant des états de conscience.

La vie intellectuelle paraît sous deux formes: *la représentation* et *l'entendement*.

La représentation s'accomplit d'une manière passive, par *la perception* et *l'aperception*, qui déterminent *l'attention* et *la mémoire*; *l'intuition* et *l'imagination*, qui paraissent aussi comme des manifestations actives, volontaires et affectives, de l'entendement.

La représentation a pour résultat la reconnaissance du donné, la formation des notions primitives de la connaissance.

L'entendement s'accomplit d'une manière toute active, par *la pensée* et *le jugement*.

La pensée, comme manifestation volontaire, cherche à déterminer et à caractériser l'être du donné, ses modalités et manifestations, et à démêler leurs rapports.

Le jugement, c'est l'action volontaire qui établit des rapports de causalité, affirmant *le sujet* et *l'objet*, dont l'un d'entre eux doit être de nature matérielle ou, au moins, viser la matérialité des choses.

Par la pensée et le jugement on arrive à des notions abstraites.

La vie intellectuelle proprement dite, dont nous avons parlé, a pour but l'utilité matérielle. Celle-ci constitue une série nouvelle dans la coordination du langage: *la vie utilitaire*, qui commence par l'affirmation de l'action volontaire, s'élève à l'activité et aboutit à la vie économique, individuelle et sociale, comme nous allons le voir.

La vie utilitaire se présente sous deux aspects: l'une intellectuelle, déterminée par *le besoin*, par *la nécessité*, qui éveillent *l'intérêt* et *la préférence* et parfois *la curiosité*, et qui, dans le but de l'action, affirment *l'intention*, *le but*. La seconde manifestation de la vie utilitaire est de nature matérielle: *le fait* physique de l'action (l'emploi de l'organisme individuel dans une intention bien déterminée).

La réalisation de l'action demande de nouvelles manifestations intellectuelles de nature volontaire: *la décision* et *l'indécision*; *la patience* et *l'impatience*; *la prudence*, *la persévérance*, etc.

Cependant, par les buts proposés, la vie utilitaire ouvre le chemin de *la finalité* et, par là, une nouvelle vie psychique d'un ordre supérieur paraît: *la vie spirituelle*. La matière disparaît, l'esprit se manifeste dans toute sa force intellectuelle consciente. L'individu humain devient une personne apte à réaliser une vie supérieure et personnelle.

La vie spirituelle s'affirme de deux manières: par *la contemplation* et par *la pensée spirituelle*, par le *cogito.*

La contemplation est un fait indéniable pour la coordination du langage.

C'est une intuition qui s'accomplit par une pénétration instantanée du donné, et par laquelle on arrive à une image, à *une idée* spirituelle, dépourvue de toute matérialité. La rêverie, l'extase, la nostalgie, la mélancolie, etc., sont ses manifestations.

Les conséquences immédiates de la vie contemplative sont les sentiments.

Les sentiments paraissent comme la suite des penchants organiques, devenus des aspirations spirituelles.

Ils sont donc des états de conscience, volontaires, affectifs ou émotifs spiritualisés.

La contemplation paraît d'abord comme volontaire. C'est une finalité contemplative de nature volontaire qui affirme *le bien* et *le mal*; manifestée par la conscience morale et, pratiquement, par *la dignité personnelle*, comme les plus hautes expressions individuelles et sociales de la vie humaine. *Le devoir*, *l'imputation*, *le remords* sont les manifestations de la conscience morale, comme résultats indéniables des *faits* (*actes*, *actions*) et de leurs conséquences: les *fautes* (*méprises*, *erreurs*, *délits*, etc.).

La conduite et *l'inconduite*; *les vertus* et *les vices* sont ses manifestations.

Il y a ensuite une contemplation de nature affective, qui s'affirme par le fait d'être surpris, étonné, émerveillé, stupéfait, etc., en face du *surnaturel* (*le mystère*, *le miracle*, *le divin* des choses).

De ces constatations, la contemplation affective passe à *la croyance religieuse*, manifestée par *la piété*, *la dévotion*, *le mysticisme*, *l'occultisme*, etc.

La religion est de nature affective aussi par son but, puisque la vie spirituelle s'efforce à transformer aussi le plaisir physique en des sentiments: c'est *le bonheur*, *la félicité*, *la béatitude*, etc., qui sont de nature tout à fait religieuse.

La contemplation émotive, par ses constatations sur *l'harmonie* et *le contraste* du donné, affirme *le beau* (*le gracieux*, *le sublime*), qui produisent *le charme*, *l'enchantement*, *le ravissement*, *l'inspiration*; ou *le dégout*, par leurs contraires: *le laid*, (*le hideux*, *l'exécrable*).

De ses constatations, la contemplation émotive affirme *l'art.*

L'espérance paraît pour la contemplation émotive comme une aspiration de réalisation.

La pensée spirituelle, le *cogito*, cherche la raison des choses.

Elle pose des problèmes et affirme des méthodes pour les résoudre par *la raison* et sa manifestation: *le raisonnement.*

Le raisonnement pose l'analyse et la synthèse.

Le raisonnement est l'œuvre de constatation et de vérification: *philosophique*, par *la logique* et *la dialectique*; *scientifique*, par *l'hypothèse* et *l'expérience.*

La coordination et la classification, philosophiques et scientifiques, en sont leurs résultats.

La vie utilitaire elle-même se spiritualise par le raisonnement, par l'emploi de méthodes et procédés adaptés aux diverses circonstances, en passant de l'action à l'activité.

C'est la vie économique.

Elle se réalise par *le travail* (*le labeur*, *la peine*) et *l'occupation* (*l'emploi* des *plantes* et des *animaux*; *l'agriculture*, *l'industrie*, etc.), ayant pour but le bien-être, le confort.

L'activité économique marque nettement le passage de la vie personnelle à la vie sociale.

Pour celle-ci, la philosophie du langage exige le même système de classement que pour les séries précédentes, puisqu'elle paraît comme un prolongement de la vie spirituelle et utilitaire de l'homme.

Il y a d'abord une vie personnelle et une activité personnelle en société.

La vie personnelle est déterminée par des sentiments d'un coloris social.

L'égoïsme et *l'altruisme* — vivacité et mollesse organiques spiritualisées — caractérisent la manifestation volontaire dans la vie sociale, par *l'ambition* et *la modestie*; *l'abnégation*, *le sacrifice*, etc.

La bonté et *la méchanceté* caractérisent la manifestation sociale affective, par *l'humanité* et *l'inhumanité*, etc., tandis que *l'amour* et *la haine* caractérisent des sentiments sociaux émotifs, de *sympathie* et d'*antipathie*, etc.

Ce sont tous ces sentiments de nature sociale qui déterminent et règlent la conduite de l'homme en société.

La conduite personnelle se manifeste ensuite à l'égard des autres hommes: par des faits de *considération* et de *mépris*; d'*apaisement* et de *provocation*, de *contentement* et de *contrariété.*

La politesse et l'impolitesse en sont des conséquences.

Il y a enfin une conduite sociale réciproque, dont *la bienveillance* et *la malveillance*; *l'amitié* et *l'hostilité*, *l'union* et *la désunion*, déterminent les rapports sociaux, d'*intervention* et de *non-intervention*, et les relations sociales d'*intelligence* et de *mésintelligence*, etc.

Ce sont ces rapports et relations sociales qui ont déterminé *les coutumes* et *les usages*; *les conventions* (la mesure du temps, l'écriture, etc.).

Il y a enfin l'organisation sociale dont les institutions la confirment et la mettent en évidence, comme étant la plus utile des manifestations de la vie sociale.

L'organisation sociale se manifeste par le *travail en commun; collaboration* et *coopération.*

L'organisation de la famille, l'organisation territoriale, l'organisation politique des diverses nations; les institutions religieuses, artistiques, de culture, et enfin l'organisation économique mettent en évidence l'œuvre de la vie humaine en commun.

La coordination du langage finit, nous le voyons, par la vie économique, démontrant en quelque sorte que c'est l'utilité qui détermine l'effort individuel et social de l'homme.

La coordination du langage nous montre encore que l'avancement de l'homme s'accomplit, de toutes manières, à l'aide d'une incessante extension et application de notions, tandis que la plupart des mots abstraits — comme la Philologie le constate — ont à leur base une dérivation des mots concrets, primitifs, qui en certains cas se sont formés par onomatopée.

Tout ce que nous constatons sur la philosophie du langage, représente — en un très court résumé — les résultats d'une classification des mots selon leurs significations.

Un tel classement nous le croyons possible pour toute langue, puisqu'il n'y a qu'un seul procédé à suivre: celui que la langue même exige, vu que le langage est l'expression la plus haute de l'effort accumulé de la vie humaine, dans le temps et dans l'espace.

Les mots naissent et meurent; ils varient de peuple en peuple, d'une région à une autre chez un même peuple; mais leur substratum reste éternellement le même pour notre intelligence.

LE RAPPORT DE LA PENSÉE SCIENTIFIQUE A L'IDÉAL DE CONNAISSANCE

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LE sujet qui est proposé est très ample. Je chercherai à dégager les résultats auxquels est parvenue la spéculation contemporaine d'une façon assez simple et assez nette pour fournir des thèmes de discussion.

Au point de départ, il y a un paradoxe. L'effort méthodique pour une connaissance exacte de notre monde a mis en œuvre les qualités de courage et de scrupule, d'humble soumission à la discipline du vrai, que l'humanité de tout temps s'est recommandées à elle-même. Comment se fait-il que le progrès de cet effort semble s'accompagner d'une sorte de 'mauvaise conscience'? A mesure que sont plus manifestes la subtilité hardie des combinaisons analytiques et le perfectionnement merveilleux de la technique expérimentale, nous avons l'air presque déçus devant la positivité plus assurée de notre savoir, trompés, pour ainsi dire, par la vérité, comme si elle nous éloignait de cet idéal qui nous avait inspiré la recherche.

A cette question, l'histoire dont l'enseignement se prolonge et s'accroît par l'exploration psychologique de la mentalité primitive et de la mentalité puérile, permet de fournir une réponse décisive en ce sens qu'elle est appelée à réparer l'erreur d'autrefois en même temps qu'elle l'explique. Trop de savants et aussi trop de philosophes continuent, aujourd'hui, à prétendre juger les résultats de la science en les rapportant à des systèmes de référence qui sont antérieurs à l'avènement de la science; de telle sorte qu'on les voit conclure à la faillite, ou à la demi-faillite, du savoir positif, alors qu'il n'y a sans doute lieu d'incriminer qu'un *idéal* imaginaire de connaissance, sans rapport avec la façon dont l'homme est effectivement parvenu à la vérité de l'univers.

Du jour où Galilée a démontré que la physique n'avait rien à faire avec les concepts de la scolastique, que la méthode expérimentale était inséparable de l'application du calcul, la déduction logique était hors de cause; et d'ailleurs, de toute évidence, il était impossible que l'on pût conclure rationnellement des cadres formels du langage au tableau de la réalité. Quant à l'induction baconienne, sa technique opératoire est liée à la méthode des différences, et il se trouve que dans le monde où l'homme est placé une telle méthode est inefficace. Elle consistait à éliminer les antécédents qui ne sont pas cause au profit d'un antécédent, ou d'un groupe d'antécédents, privilégié que l'on suppose déjà donné à l'observation et que, par suite, il serait possible d'isoler par le prolongement patient d'une sélection exhaustive. Or nous savons que les composants véritables d'un phénomène s'obtiennent, en général, par *intégration* de facteurs qui, non seulement ne sont pas fournis par la nature à l'échelle humaine, mais encore qui doivent être cherchés au delà des éléments intuitifs de la représentation. La méthode qui nous livre le secret de l'univers, c'est *la méthode différentielle*, non *la méthode des différences*. Aussi, comme l'avait aperçu Leibniz, la physique repose-t-elle essentiellement sur l'analyse infinitésimale.

La première démarche de la philosophie de la science aurait donc dû, semble-t-il, consister à rejeter l'idéal archaïque du réalisme déductif ou du réalisme inductif pour suivre la connexion interne d'un double processus: *mise en équation du problème de l'univers, solution des équations proposées aux analystes par les géomètres ou les physiciens.* On ne peut guère dire qu'il en ait été ainsi, et c'est pourquoi la philosophie, du dehors si l'on veut et pour le vulgaire, a toujours l'air d'être *en porte à faux*, partagée entre la position d'un problème qui ne répond plus aux conditions effectives de la recherche de la vérité et la possession de solutions qui n'ont pas encore conduit à l'élucidation complète, à la conscience autonome, de la signification de la connaissance.

A cet égard, Leibniz a été le premier à donner le mauvais exemple lorsqu'il a essayé de faire servir l'approfondissement de la mathématique moderne à la réhabilitation de la logique traditionnelle. Kant, à son tour, ramène l'analyse de vingt-cinq siècles en arrière jusqu'à l'époque où la considération de l'infini apparaissait comme irrationelle par excellence. La mathématique kantienne ne dépasse pas l'intuition du nombre, confondue, on n'a jamais su pourquoi, avec la forme *a priori* du temps. Ces influences fâcheusement combinées expliquent le caractère singulier de la philosophie mathématique au XIX^e^ siecle. Elle n'a pas su se placer franchement au centre de la science pour suivre de là, dans toute sa hardiesse imprévisible, l'élan de son mouvement. Elle a regardé vers le passé, comme s'il n'y avait de salut que dans les cadres mesquins du discours logique ou de la représentation proprement arithmétique.

Le mauvais charme a été rompu par la théorie des ensembles. Elle a mis fin (ou plutôt elle aurait dû mettre fin si nous avions été sages) aux controverses sans issue des arithméticiens purs et des logisticiens. En découvrant que l'opération de correspondance est le ressort original et fécond de l'intelligence spécifiquement mathématique, Cantor nous a fait comprendre quelque chose de fondamental pour l'intelligence d'une philosophie de la science: cette opération, si elle affleure *la dernière* dans la conscience du mathématicien, est pourtant *la première* à considérer quand il s'agit de saisir la spontanéité qui est inconsciemment à l'œuvre dans les relations originelles grâce auxquelles l'humanité est arrivé à introduire dans ses pratiques mentales une norme de vérité: échange un contre un, liaison de chaque objet à compter avec une sorte de barème fixe tel que le présentent assez naturellement les doigts des mains ou des pieds.

Nous savons désormais que le nombre n'est ni série ni collection, mais correspondance de chaque degré dans la formation de la série avec chaque résultat dans la composition de la collection. Les illettrés, réduits à calculer de tête, en sauront donc plus, en tout cas seront capables de mieux nous renseigner, sur la nature intrinsèque du nombre, que les théoriciens de l'abstraction qui, confondant l'économie de pensée avec l'économie de langage ou d'écriture, se sont gratuitement embarrassés dans la question de savoir si le nombre était ou ordinal ou cardinal, question aussi évidemment inextricable, et pour la même raison, que celle de décider si les concepts de la logique devaient être interprétés ou seulement en compréhension ou seulement en extension.

La prétendue psychologie de l'intelligence, qui était calquée sur les articulations du discours, *terme* ou *concept*, *proposition* ou *jugement*, *raisonnement*, est d'ordre purement philologique. Elle n'a rien à faire avec l'analyse des fonctions proprement intellectuelles qui, elle, surgira directement de la science pourvu que nous cessions de subordonner la réflexion critique sur la pensée au primat *métaphysique* (il faudrait dire ici *métamathématique* ou plutôt *métalogique*) du discours.

Quand nous imaginons que l'idéal de la connaissance consisterait à partir de l'évidence supposée des principes logiques ou des intuitions numériques, nous nous donnons des systèmes de référence qui sont extérieurs à la positivité du savoir, envisagé dans sa croissance continue, qui ne reflètent que le parti pris d'une époque ou d'une doctrine. Nous sommes dupes de l'illusion, inhérente à toute tradition sociale, par quoi l'antériorité chronologique est érigée en supériorité transcendante.

Ainsi ce qui rendra la philosophie contemporaine de la science, ce qui rétablira son équilibre, c'est une refonte des conditions du problème à la lumière de sa solution. Et les expressions mêmes dont nous venons de nous servir laissent pressentir que nous devons aux théories de la relativité, sur le terrain physique, le même bienfait de libération et d'éclaircissement que la théorie des ensembles apporte sur le terrain métaphysique.

Que l'on se rappelle, pour mesurer le chemin parcouru, les discussions de la fin du siècle dernier, sur l'arbitraire des principes de la physique sur la subjectivité des faits proprement scientifiques. Il semblait alors que la valeur de la science ne pût être assurée à moins de satisfaire aux idéaux nécessairement illusoires et périmés de l'ère préscientifique, c'est à dire qu'il aurait fallu, soit, du point de vue rationnel, faire la pétition de principes auxquels serait suspendue une déduction ayant pour modèle la forme sous laquelle, depuis Euclide et malgré Descartes, la géométrie était exposée; soit, du point de vue empirique, réaliser intuitivement des éléments d'explication comme ceux dont la méthodologie inductive avait jadis fait briller le mirage.

Aujourd'hui, on parle encore *d'axiomatique*, mais il n'y a plus d'axiomes au sens traditionnel du mot, de telle sorte que la mise en forme déductive de la physique ou de la géométrie intéressera encore la pédagogie de la science, mais non plus, comme autrefois, sa philosophie. La constance de la vitesse de propagation de la lumière ou l'impossibilité de considérer l'électron pour soi-même, abstraction faite des conditions introduites par le phénomène humain de l'observation, peuvent être littérairement énoncés comme principes; mais, dans la réalité de la pensée, elles expriment des *faits limites*, c'est à dire le complexe de relations qui s'établissent entre la nature et le savant dès le moment où celui-ci se rend compte de ce que signifie exactement la connaissance véritable de celle-là.

Or, ces relations, envisagées du point où la recherche est actuellement parvenue, ne répondent nullement à celles que l'homme avait imaginées avant Galilée lorsqu'il n'était pas encore en état de combiner le calcul et l'expérience, lorsqu'il ne pouvait que construire dans le vide dialectique son idéal de connaissance puisque, pour parer à l'insuffisance des perceptions sensibles, la seule ressource dont il disposait était le verbalisme des concepts logiques.

Encore ici, le renversement d'un idéal archaïque par la substitution de la réflexion critique à l'imagination intuitive est la démarche ultime de la conscience humaine. Elle marquera le terme du long effort par lequel la philosophie se soustrait aux embarras que crée l'ombre d'une 'métaphysique de l'ignorance' projetée sur la croissance lumineuse du savoir positif.

Assurément, dès le triomphe du système héliocentrique, au XVIIe siècle, on pouvait assurer que le réalisme de sens commun était absurde. L'espace vrai de l'astronomie n'a rien à faire avec l'espace des apparences optiques, tel qu'il était enregistré dans la pseudo-physique du moyen âge, selon l'absolu du haut et du bas, selon l'absolu du mouvement des astres. Mais nous avions beau avoir changé nos systèmes de référence pour constituer la mécanique céleste; tant que nous ne savions pas que la géométrie euclidienne était seulement une espèce du genre géométrie, l'espace demeurait, comme la substance dans l'ontologie scolastique, une matière opaque à l'intelligence et sur quoi le dogmatisme de l'*a priori* prétendait encore s'appuyer. Il a fallu, non seulement l'invention des géométries non-euclidiennes, mais leur heureuse application à la détermination de la structure de l'univers, pour faire apercevoir à plein la portée philosophique de la révolution copernicaine.

Sans doute Kant l'avait invoquée, assez paradoxalement d'ailleurs, pour légitimer le passage du point de vue de l'objet au point de vue du sujet; mais sujet et objet n'en étaient pas mieux adaptés l'un à l'autre: pour un intellect à catégories le monde apparaît nécessairement, Kant l'avoue, comme étant à la fois 'trop petit et trop grand'. L'ajustement a été seulement accompli de nos jours, et en même temps les antinomies ont été surmontées, par l'abandon de tout système de référence emprunté du dehors aux normes du dogmatisme métaphysique, évidence axiomatique de soi-disant principes de la déduction ou représentation intuitive des éléments d'explication. *Le monde einsteinien ne se réfère qu'à lui-même*, grâce à la connexion intrinsèque des formes mathématiques et des faits d'expérience, sans offrir désormais la moindre prise à la tentation de les dissocier afin de satisfaire à l'idéal également faux, soit d'un primat des concepts logiques, soit d'un primat de l'imagination sensible.

La solution de la question que nous avions à examiner revient donc à dire que la philosophie d'après la science s'oppose à la métaphysique d'avant la science, jusque dans la racine même de notre structure mentale. Du fait qu'elle a révélé le sens authentique de la connaisance de l'intelligence et de la vérité, la science a renversé l'attitude qui est naturelle à l'homme sous l'impulsion de l'égocentrisme vital. A l'âge d'évolution historique ou de développement individuel où elle est encore incapable de réflexion sur soi, la pensée humaine concluait inconsciemment de la vision spontanée des choses à leur réalité transcendante d'objets. Or, le progrès de la physique mathématique, à mesure qu'il nous donne conscience de ce que l'esprit apporte de lui-même dans la vérité du monde, achève de nous convaincre qu'il n'y a pas de place privilégiée pour une perception *optima* de l'univers. L'être se définit, non de haut en bas par une hiérarchie d'essences ou de qualités, mais, au niveau proprement humain, par une coordination des perspectives prises de centres différents, et reliées les unes et les autres grâce à des formules de transformation qui font surgir de la multiplicité des perspectives individuelles l'harmonie d'un système mathématique. L'activité constitutive de l'être véritable est donc sans rapport avec le maniement des abstractions conceptuelles ou des images sensibles. Elle se caractérise comme *fonction de réciprocité*.

Mais, et c'est peut-être le trait le plus remarquable de l'heure actuelle, cette caractéristique de la raison, qui au premier abord apparaît inattendue, ne fait que rejoindre du point de vue spéculatif la même norme de désintéressement et d'efficacité que Socrate jadis avait proposée dans le domaine pratique; et elle se relie encore aux travaux extrêmement suggestifs de MM. Davy et Mauss sur *la Foi jurée* et sur *le Don*, qui montrent cette même fonction de réciprocité inconsciemment impliquée dans le cérémonial des échanges à l'intérieur des sociétés primitives.

Ainsi, une philosophie de l'intelligence, attentive à suivre l'œuvre du génie contemporain, nous ramène à cette conclusion que le ressort le plus profond et le plus fécond de la pensée est inévitablement aussi le plus caché, celui que la réflexion découvre en dernier lieu. Et semblable découverte n'est possible au philosophe que s'il renouvelle perpétuellement son effort à contresens des formes de langage et des préjugés d'École qui tendent toujours à revêtir d'une apparence fallacieuse d'intemporalité ce qui correspond seulement à une étape sur la route indéfinie de la science. A cette condition seulement on évitera la disgrâce de tourner en *obstacle* cela même qui avait servi d'abord et qui aurait dû toujours servir seulement d'*appui*, soit du côté de l'expression logique, soit du côté de la représentation intuitive.

Je dépasserais les limites du sujet qui m'a été assigné si je développais toutes les conséquences de ces résultats. On voit qu'ils concordent avec ceux qu'ont atteints MM. Claparède et Piaget, dans leurs recherches si originales à tous égards sur la psychologie de l'enfant, et dont ils ont dégagé la formule dans leur loi, bien connue, de la *prise de conscience.* Il n'est pas sans opportunité de souligner cette convergence de recherches indépendantes pour justifier, en terminant, notre confiance dans l'avenir, au moins intrinsèque, de notre civilisation rationaliste. S'il sert à l'humanité de durer, s'il y a bien un progrès effectif de la pensée, il se mesure nécessairement par l'écart entre les anticipations de l'imagination *a priori* qui crée les systèmes, et les solutions dûment vérifiées qui concourent à former le tissu de la science positive. Et sans doute, il ne suffira pas de savoir comment et en quoi on a été vainqueur pour devenir assuré de tirer parti de la victoire; au moins semble-t-il que c'en puisse être la condition première.

TRUTH, GOODNESS, AND BEAUTY

S. ALEXANDER

IN this paper I am hoping not so much to add anything to what I have already said upon the subject in various places as to suggest topics for discussion.

There are two ways of dealing with the distinction of the three supreme values. One is analytical or philosophical, to which I shall principally direct my remarks; the other, which is probably of greater interest, is psychological and bears more obviously upon the ultimate question of the nature of value. That ultimate question itself I shall not attempt to raise. I have the feeling that the best way of attacking that subject is by going around it and examining particular topics; at any rate it is the only way open to me at present.

The first way of distinguishing the three is to observe the difference in the *controls* engaged in the creation of these values. For in all three there enter two constituents: one is the mind itself, the other the material upon which it works. Beauty (and I think of artistic beauty) is the key to the others, for there the two constituents are so palpable. In a work of art we can distinguish (1) the physical material, (2) the part played by the mind. I put aside all metaphysical inquiries as to whether the physical material is not itself ultimately mental in character, and am content to take the work of art as it stands. It is stone or pigments or words or tones, which through the mind's action acquire a certain form or significance. The mental element is so prominent here because in the work of art—sculpture is the easiest case to begin with—the artist introduces into the form of his material characters which the material itself does not possess, life, for instance, or charm, or divinity. The sculptor in making a portrait bust has for his subject or subject-matter a living man of a certain character, and he translates the form (that is, the internal relations of the parts of the surface) of the man as he conceives him (and even when he fancies he is copying he is really always interpreting, selecting, heightening, or minimizing according to his interest in the subject)—he translates the form of this subject from its material embodiment into another material, the material of his art. The form of the artist's material is made by the artist's hand identical with the form of the subject. This is why the bust at once is different from the subject and looks like that subject. The bust is not alive, for clay or marble is dead and cannot live, but it looks as if it were alive. The illusion of the work of art is that it seems to be something which it is not, and such illusoriness is essential to the existence of a real work of art, makes it true while ordinary illusion falsifies. The function then of the sculptor is to import into the form of a foreign material characters or ideas, alien to that material and supplied by the mind, which the artist desires to express. In this sense the bust is a physical material into which the mind enters in the only way possible for it to enter, by moulding the form of the material so as to mean, so long as the mind is there to interpret, certain qualities. This is the sculptor's magic, but it is nothing mysterious, because the ideas foreign to the material exist only in the form of that material as it appears to the artist, or the spectator who views it.

It would not be so easy to show in detail that this account applies to the other arts, and particularly not in music, where I am convinced that the real nature of beauty is most clearly to be seen, if one had the necessary experience.[1] But in architecture, which comes nearest to music in the problems it offers to the philosopher, the statement may be verified. For the architect, when he is not merely a craftsman, is not simply handling pressures and resistances of stone or iron, he imparts to them grace or lightness or the human qualities which belong, for example, to cathedrals, impressiveness or aspiration or what not; and these qualities are foreign to the materials themselves but are introduced by the architect in choosing the form of his materials. All this is familiar from the work of Lipps, and does not at all carry with it necessarily Lipps's conception of empathy or *Einfuehlung*. The literary art offers difficulties, for there the material consists of words which already have meaning; and it might appear that the writer, whether of poetry or of prose which can be called artistic, did no more than skilfully to create a mosaic of significant pieces. But there, too, it will be found, I believe, and most clearly in poetry, that the artist is not leaving his material as he found it, but importing into his words, whether by the choice and arrangement of them or otherwise, a significance they do not possess of themselves in their ordinary usage.

Now in this joint product of mind and the material it is clear that there is a twofold control, one from the material itself and the other from the mind. The artist has to obey the nature of the stuff in which he works, and it is possible, though I make no assertion, that he may be limited in his choice of subject and more certainly in his treatment of it by his material. But the more important control is that of the mind itself, for it is the mind which introduces its significance into the material (or appreciates it when once introduced). In truth and goodness this double control is replaced by a single one, in truth control from the material and in goodness control from the mind. They are in fact limiting cases in which one of the two controls evident in art vanishes in favour of the other. Both science, whose value is truth, and virtue, whose value is goodness, are works of art in that they would not be except for the mind which makes them or appreciates them when made. They are creations of mind. But they are not works of fine art where the dual control is so evident.

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[1] See further a paper 'Beauty and Greatness in Art' in the forthcoming volume of the Aristotelian Society's *Proceedings*.

The material of science or knowledge is the data or facts about which the science is conversant. The science is not the physical facts themselves, but an elaboration of them by the mind of the inquirer or knower. Science is founded on facts and ends in verification by them. But the science itself is the artefact created by the mind. In this artefact the control is exercised completely by the data. Science which is not so controlled is unscience. Whereas in fine art the ideas used by the mind in fashioning the material remain an essential constituent of the product; in science the ideas used by the mind (and the most palpable feature of a science is the employment of such unifying or interpretative ideas) are used instrumentally, to discover and not to create, they are ancillary to what is discovered by them to be already in the material. Further, whereas in fine art the ideas used creatively by the mind are foreign to the material and therefore can enter into the material only as an essential constituent of the work; in science the ideas are at long last, directly or indirectly, at short or long remove, congenial to the material and not foreign to it. Even in the highest flights of physics where mind seems to fly off into a world of its own, it may be shown, I believe, that it uses ideas of the same stuff as the facts it starts from and submits therefore to be verified by them.

In morals, on the other hand, the product is controlled, if it is to have goodness, entirely from the mind. For here the material of virtue is mental from the outset, it is the passions which in virtue are regulated. The control is from within, because regulator and regulated are alike mental. It is true that here, too, there is an external physical element involved, for passions and the conduct which issues from them are directed upon the external world, provoked by it, and reacting upon it. But the problem of virtue and of creating moral value is not how to adapt ourselves to the external world; that is part not of the art but of the craft of living. The problem of morals is how to satisfy our passionate reactions to the world we live in in such way as to adjust our passions to the passions of our fellow men. The influence of the external world is presupposed before the problem of virtue begins. Thus the material being passionate is mental from the beginning. We do not as in fine art work up a piece of physical nature, a block of marble, into a product which is half physical half mental; we work up our own passions or the conduct they issue in into a form which has value.

Accordingly in all these three forms of what may be called art, there is both a material and a mental element. But in fine art the control is double, in science the control is from the material, in morals it is from the mind which also supplies the material.

Morals lead on naturally to the second or psychological approach to these values. For, without any assertion that this exhausts the nature of the human values, it remains true about them that a human value is something which satisfies a human desire or interest. I believe myself that it is this which makes them valuable, but this assertion is not necessary for my purpose. Now when we ask what interest is satisfied by truth, goodness, or beauty the answer is clearest in morals and in science, and obscurest in art where the nature of the control was more obvious. For in morals it is fairly clear, I think, that moral value does not reside in the satisfaction of the particular desires (e.g. hunger or love), though it is not possible without such satisfaction provided the satisfaction be appropriate; but in the satisfaction of a specific desire or interest, which can only be named by the question-begging name moral interest or moral sense. It is not the satisfaction of desires which is good, but their satisfaction, as Hume said, in a certain fashion. We have to put our finger on this moral passion, and it is, I should say, the social passion or sentiment. So that the regulator of our passions into morality is another passion—that of sociality, sublimated, of course, by intelligence and insight. In the same way, truth is the satisfaction (I do not here say it is nothing but this) of sublimated curiosity, the impulse which we can trace upwards from its practical form in dogs and other animals bent on practical purposes till it comes to be disinterested and socialized. What the impulse or interest is which beauty satisfies it may be harder to say. To call it an aesthetic interest is legitimate but has no other value than to insist that there is such an interest. Elsewhere I have tried to identify it as a sublimation of the constructiveness exhibited in various animals (bees, beavers, ants, and nightingales; I may refer also to the 'parabasis' in the charming *Paradise of Birds*, by W. J. Courthope). Such attempts to affiliate the regulative interests of the higher values may or may not be successful. I would only protest that they should not be ruled out as being merely psychological. For it may be that to discover what the precise impulses or interests are which the highest values satisfy is to remove something of the mystery in which the idea of value is often wrapped, without bating one jot of the importance of these values in life.

PLATONS PHILOSOPHISCHES SYSTEM

H. GOMPERZ

(*Wien*)

DIE Echtheit von Platons 7. Brief, seiner Autobiographie, ist nun so gut wie allgemein anerkannt. Er muss 354–353 verfasst sein. Aus ihm erhellt, dass Platon damals gewissen Ansichten über das wahre Wesen der Dinge huldigte, die ihm als die weitaus wichtigsten seiner Lehren und als die unerlässliche Voraussetzung eines tugendhaften Lebens galten. Er pflegte sie in einige kurze Formeln zusammenzufassen, hatte sie jedoch—aus Gründen, die er ausführlich darlegt—niemals aufgezeichnet und gedachte dies auch nie zu tun.

Es lässt sich kaum bezweifeln, dass diese Ansichten in der Hauptsache mit jenen Gedanken zusammenfielen, die Platon in der Vorlesung *Über das Gute* vortrug (aus der uns einige Auszüge erhalten sind) und die auch Aristoteles stets als wesentliche Züge des Platonismus hinstellt. Auch Theophrast fasst sie einmal ganz kurz zusammen, und sie berühren sich aufs engste mit allem, was wir über die Lehre der ältesten Akademiker wissen.

Es ist der Inbegriff dieser Ansichten, den ich 'Platons philosophisches System' nenne. Es ist von Robin ausführlich dargestellt und neuerlich von Frank, Jaeger und Stenzel sowie von W. D. Ross und A. E. Taylor erörtert worden. Seine Einzelheiten sind nicht leicht zu ermitteln, allein sein allgemeiner Umriss steht fest und wir können mit Bestimmtheit sagen, was für eine Art von System es war.

In seiner *Metaphysik* sagt Theophrast (6^b11 Usener—III 13 Ross u. Fobes), dass Platon 'die Dinge an die Ideen knüpfte, diese an die Zahlen, von diesen aber dann zu den Urgründen' oder Urfaktoren fortschritt. . . . .

Eine Idee ist für Platon das einheitliche, unveränderliche Wesen einer Eigenschaft, aber auch aller Einzeldinge, die an einer solchen Eigenschaft teilnehmen und insofern eine Klasse bilden. Und da ein solches Wesen notwendig frei von jeder fremden Beimischung und insofern rein und vollkommen ist, sah Platon in den Ideen auch Vor- oder Musterbilder aller jener Einzeldinge. Und die Anerkennung von Ideen und ihre Unterscheidung von den Einzeldingen gilt zumeist als die Summe der platonischen Philosophie.

Allein schon Theophrast sagt, dass Platon, wie die Dinge an die

Ideen, so wiederum die Ideen an die Zahlen 'knüpfte'. Auch Aristoteles behauptet mehr als einmal, nach Platon 'seien' die Ideen 'Zahlen'. Allein hier muss entweder 'sein' oder 'Zahl' in einem weiteren als in dem gewöhnlichen Sinne genommen werden. Ohne Zweifel z. B. nahm Platon Ideen von Gerade und Ungerade an, allein weder jenes noch dieses 'ist' irgend eine bestimmte Zahl. Andererseits 'knüpft' Platon selbst im *Timaios* die Idee des Feuers an die tetraedrische Gestalt seiner Teilchen; allein Gestalt ist nicht 'Zahl'; sie ist, was Aristoteles 'Grösse' nennt, nämlich ein von der Zahl 'erzeugtes', jedoch nicht mit ihr identisches Gebilde. Heisst es also, nach Platon 'seien' die Ideen 'Zahlen', so muss damit entweder gemeint sein, sie liessen sich aus ihnen erklären oder ableiten, oder aber 'Zahl' ist hier in einem weiteren Sinne zu verstehen, in dem das Wort auch Eigenschaften und Verhältnisse von Zahlen (wie Gerade und Ungerade) sowie die aus den Zahlen ableitbaren 'Grössen' bezeichnet.

Die 'Urgründe' oder 'Urfaktoren' endlich, an die Platon die Zahlen 'knüpfte' und von denen er sie 'erzeugt' sein liess, und die Platon, da sie die 'Urfaktoren' (der Zahlen und darum auch) der Ideen seien, auch für 'die Urfaktoren aller Dinge' hielt (Aristoteles *Metaph.* A 8), sind uns ebenfalls bekannt. Es waren ihrer zwei, genannt 'das Eine' und 'das Grosse und Kleine' oder 'die unbestimmte Zweiheit'. Und, im allgemeinen, scheint so viel klar, dass 'das Eine' Bestimmtheit und Genauigkeit, 'das Grosse und Kleine' Unbestimmtheit und Veränderlichkeit bedeutet. Wir dürfen darum annehmen, dass, wenn Platon lehrte, die Zahl werde von 'dem Einen' aus 'dem Grossen und Kleinen erzeugt', damit gesagt sein sollte, sie entstehe, sobald eine unbestimmte Vielheit bestimmte Werte annimmt. Ist also diese Lehre eine rein mathematische (Taylor)? Das ist wenig glaublich. Wir ersehen aus einem Bruchstück des Hermodoros (Simplicius in phys. 248, 8 Diels), dass 'das Eine' alles 'Gleiche und Dauerhafte und Harmonische' bedeutet, während alles andere 'unbeständig, formlos, unbegrenzt und unwirklich' ist, und Aristoteles selbst sagt (*Metaph.* A 6), Platon betrachte 'den einen der Urfaktoren als die Ursache des Guten, den andern als die des Übels'. Offenbar also sind die Urfaktoren die ersten Gründe nicht nur der Mathematik, vielmehr auch der Kosmologie und der Ethik. Sie stellen 'Urgründe' dar, aus denen 'alle Dinge' abzuleiten sind.

Und in der Tat, Platons philosophisches System ist ein *Ableitungssystem.* Ihm ist die Aufgabe gestellt, darzutun, dass die Dinge durch die Ideen, die Ideen (und die Seelen, vgl. Theophrast 6^b2

Usener—III 12 Ross u. Fobes, und Xenokrates Frg. 60 Heinze) durch die Zahlen (einschliesslich der 'Grössen'), diese durch die Urfaktoren bedingt sind. 'A ist aus B ableitbar' oder dadurch bedingt, bedeutete für Platon ohne Zweifel soviel wie 'es lässt sich darauf zurückführen als auf etwas, was 'der Natur und dem Wesen nach' früher ist, weil es 'ohne das andere gedacht werden kann, dies aber nicht ohne jenes" ' (Aristoteles *Metaph.* Δ 11). Allein bedeutete nun dies 'Frühersein' nur logische Priorität oder auch wirkliche Abhängigkeit des 'Späteren' oder gar dessen Hervorgang in der Zeit? Eine schwere Frage! Doch möchte ich glauben, dass, was Platon im Aug' hatte, vor allem logische Priorität war, freilich eine solche, die einen Zug von wirklicher Abhängigkeit des 'Späteren' in sich schloss (und so verstand es Plotin), jedoch auch ein Hervorgehen in der Zeit nicht ganz und gar ausschloss (man erinnere sich des Ausdrucks 'Erzeugen' sowie der kosmogonischen Bildersprache des *Timaios*, die zwar Xenokrates, nicht aber Aristoteles als *blosse* Bildersprache beurteilt hat).

Das Platon eine Lehre solcher Art in seinen letzten Lebensjahren vorgetragen hat, ist kaum jemals bestritten, oft aber nicht beachtet worden. Auch ihre enge Verwandtschaft mit den, den Pythagoreern beigelegten Gedankengängen konnte nicht verborgen bleiben. So hat man denn oft angenommen, Platon sei, in hohem Alter und nicht mehr im Besitze voller geistige Kraft, dem Einflusse pythagoreischer Wahngebilde erlegen. Allein die Tatsachen lassen diese Auffassung nicht zu.

Aus der Autobiographie ersehen wir zunächst, dass Platon schon 361–360 in einem vor Dionysios gehaltenen Vortrage einen Überblick über seine unveröffentlichte Lehre gegeben hatte; dass es aber auch schon vor diesem Jahre am Hofe von Syrakus Männer gab, die vorgaben, über sie vollständig unterrichtet zu sein; ja dass Platon auch schon 366 mit der Absicht dahin gekommen war, sie Dionysios einzuprägen. Und wirklich ist dies ja etwa dieselbe Zeit, zu der Aristoteles, der das 'System' stets als *die* Lehre Platons hinstellt, zuerst in dessen Schule trat. Bekannte sich aber Platon schon seit 366 zu dieser Lehre, so dürfen wir offenbar in seinen nach diesem Zeitpunkt verfassten Gesprächen nach ihren Spuren ausschauen.

Wirklich werden, wie schon erwähnt, im *Timaios* die Ideen des Feuers usf. an Grössen, also an Zahlen im weiteren Sinne, 'geknüpft'. Und sicherlich ist die Lehre von der 'Erzeugung' der Zahl der einzige Schlüssel zum Verständnis des seltsamen Berichtes über die 'Psychogonie'. Auch im *Philebos* bezieht sich der

Abschnitt über die 'Mischung' von 'Grenze' und 'Unbegrenztem' gewiss auf die 'dem Einen' beigelegte 'Erzeugung' der Dinge aus 'dem Grossen und Kleinen'. Und wenn wir hier hören, die Hauptbestandteile 'des Guten' seien 'das Mass, das Massvolle und das Angebrachte', gleich darnach aber komme 'Symmetrie, Schönheit, Vollkommenheit und Zulänglichkeit', so bestätigt das die Meldung des Aristoteles, Platon habe im 'Einen'—das Hermodoros als 'das Gleiche, Dauerhafte und Harmonische' erklärt—den Grund 'des Guten' erblickt.

Allein dürfen wir wirklich beim Jahre 366 stehen bleiben, und gibt es in früheren Gesprächen keine Spuren des 'Systems'?

Die zweite Hälfte des *Parmenides* bewegt sich zur Gänze um 'das Eine' und 'das, was nicht das Eine ist' und sucht darzutun, eine Ableitung führe niemals zu einem befriedigenden Ergebnis, sobald sie von der Voraussetzung ausgehe, 'das Eine' *oder* 'das, was nicht das Eine ist' sei oder sei nicht. Da nun in Platons 'System' das 'Sein' *beider* (soweit eben vom 'Sein' des 'Nicht-Einen' die Rede sein kann) vorausgesetzt wird—ist's da nicht sehr wahrscheinlich, dass es eben dies ist, was das Gespräch beweisen soll? Und wenn in eben diesem Gespräch die Ideenlehre, in der Gestalt, in der sie von Sokrates vorgetragen wird (der von dem *Philebos* die 'Urfaktoren' niemals erwähnt) von Parmenides kritisiert wird, der es als notwendig hinstellt, von 'dem Einen' und dem Nicht-Einen auszugehen, müssen wir nicht annehmen, dies bedeute, die, die Ideen nicht an (Zahlen und) Urfaktoren 'knüpfende' Ideenlehre sei durch eine diese 'Anknüpfung' vollziehende Gestalt dieser Lehre zu ersetzen?

Wusste also Platon nichts von 'dem System', ehe er den *Parmenides* schrieb? Eine andere Erklärung scheint glaublicher. Platon hat Sokrates kaum jemals eine Lehre in den Mund gelegt, von der er wusste, dass sie ihm fremd war, d.h. keine, die er nicht als eine rechtmässige Folgerung aus Überzeugungen betrachtete, zu denen sich Sokrates wirklich bekannt hatte. Nun heisst es im *Staate* (517a) der Mann, der die Augen der Menschen dem blendenden Glanz der Ideen öffne, werde von denen getötet, die diesen Glanz nicht zu ertragen vermögen. Offenbar also meinte Platon, dass die Ideenlehre als solche in Sokrates' Versuchen, das Wesen des Guten, Gerechten, Schönen usf. zu bestimmen, implizite enthalten war. Dagegen war er sich wohl darüber klar, das Sokrates die Ideen niemals an Zahlen oder gar an die Urfaktoren 'geknüpft' hatte (vgl. Aristoteles *Metaph.* M 4), und vermutlich ist also dies der Grund dafür, dass Platon die erste Erwähnung der 'Urfaktoren' nicht Sokrates, vielmehr Parmenides in den Mund legt, der ja wirklich die Lehre vom 'Einen' verkündet hatte. Doch ist damit natürlich nicht gesagt, dass Platon selbst das 'System', ehe er den *Parmenides* schrieb, unbekannt gewesen ist.

In der Tat lässt Platon im *Staate* (506 d'e) Sokrates sagen, es wäre für den Augenblick eine zu hohe Aufgabe, zu untersuchen, was 'das Gute' an sich selbst sei. Das spricht entschieden dafür, dass es Platon schon damals nicht genügte, 'das Gute' als eine Idee zu begreifen, dass er vielmehr bereits daran dachte, sein Wesen näher zu bestimmen und es 'dem Einen', und d.h. der Gleichheit und Beständigkeit, der Ordnung, Harmonie und Verhältnismässigkeit gleichzusetzen. Doch mehr als dies. Platons Begriff der tugendhaften Seele und der recht verfassten Stadt, wie diese Begriffe im *Staate* entwickelt werden, scheinen mir auf's engste mit der Lehre vom 'Einen' zusammenzuhängen. Tugend und Gerechtigkeit werden hier erklärt als Ordnung und Harmonie in Seele und Stadt, oder auch als Symmetrie und Verhältnismässigkeit ihrer Teile. Das aber sind—nach Hermodoros wie nach dem *Philebos*—gerade die wesenhaften Kennzeichen des 'Einen' und des 'Guten'. Die tugendhafte Seele und die recht verfasste Stadt nehmen also am Wesen des Einen und Guten teil, und eben darum ist, wie die Autobiographie betont, ein wahrhaft tugendhaftes Leben mit der Einsicht in die obersten philosophischen Wahrheiten unlöslich verknüpft. Ja Platons Lehre von der Tugend und vom guten Regiment ist zuletzt kaum mehr als eine Anwendung seiner Lehre vom Einen und Guten auf die Seele und den Staat. Es ist aber gewiss höchst unwahrscheinlich, dass er, im *Staate*, die Anwendung einer Lehre vorgetragen hätte, die von ihm selbst noch gar nicht erfasst worden war.

Wann also ist Platons 'System' entstanden? . . . Eines darf dabei nicht übersehen werden. Platon war nicht der einzige Sokratiker, der das 'Gute' dem 'Einen' gleichgesetzt hat. Eben diese Lehre war auch kennzeichnend für seinen älteren Genossen, Eukleides aus Megara, und dessen ganze Schule. Das erinnert uns daran, dass Platon nach dem Tode des Sokrates nach Megara geflohen sein soll, dann aber (388) Italien besuchte, wo er Archytas und andere Pythagoreer kennen lernte. Zwischen 399 und 388 also, im 4. Jahrzehnt seines Lebens, mögen die Umrisse des 'Systems' ihm zuerst vor Augen getreten sein. Zuletzt also waren Ast und K. Fr. Hermann vielleicht nicht so ganz im Unrecht, wenn sie den *Parmenides*, den *Sophisten* und den *Staatsmann* einer 'megarischen' Epoche in Platons Entwicklung zuschreiben wollten. Wir glauben heute zu wissen, dass diese Gespräche etwa zwischen 370-360 entstanden sind. Allein sie mögen einem Keim entstammen, der schon 30 Jahre vorher in Platons Seele gesenkt ward.

Ich fasse das Gesagte zusammen. Platons philosophisches System war ein Ableitungssystem. Es wird in den Gesprächen nicht ausdrücklich entwickelt, allein es steht, zumindest seit dem *Staat*, hinter ihnen. Und diesem System zufolge besteht die Summe des Platonismus nicht lediglich in der Entgegensetzung der ewigen Ruhe wandelloser Musterbilder und des beständigen Flusses der Sinnendinge. Platon war auch noch in anderem Sinne 'Dualist'. Ihm galten als die höchsten Weltmächte auf der einen Seite ein Prinzip der Beständigkeit, der Ordnung, der Vernünftigkeit, der Bestimmtheit, der Harmonie und der Proportion, auf der andern ein Prinzip der Unbeständigkeit, der Unordnung, der Unbestimmtheit, der Dissonanz und der Verzerrung. Auch im Reiche der ewigen Wesenheiten sind beide Mächte sichtbar; allein hier sind sie, sozusagen, versteinert: die Ideen sind das Ergebnis ihrer Wechselwirkung, allein ein Geschehen gibt es dort nicht. Auch in den himmlischen Sphären scheint der Triumph der Ordnung für alle Zeiten gesichert. In der Welt des Werdens dagegen ringen diese beiden Mächte allezeit miteinander, ja alles, was geschieht, es sei nun auf Erden, in unserer eigenen Brust oder im Staate, ist zuletzt nur ein Glied in diesem allumfassenden Streit. Im Grunde ist dies freilich der Streit zwischen Gutem und Bösem. Allein für Platon bedeutet eben das Böse 'Unbeständigkeit, Formlosigkeit und Grenzenlosigkeit', das Gute 'Ordnung, Bestimmtheit, Symmetrie und Proportion'.

‘IS THE DISTINCTION BETWEEN MORAL RIGHTNESS AND WRONGNESS ULTIMATE?’

FRITZ MEDICUS
(*Zürich*)

DIE Frage, wie weit der Wertgegensatz von Gut und Böse in die Tiefe des Wesenhaften hinabreicht, gehört eng mit der Frage nach der Wesenhaftigkeit des Menschen zusammen. Wenn der Mensch die Gestaltung seines Lebens auf Relativitäten gründet, so kann es gar nicht ausbleiben, dass ihm auch die Unterscheidung von Gut und Böse ins Bedingte gerät. In unseren Tagen intellektualistischer Ausleerung der positiven Lebensgüter verlieren die *Pflichten*, die der Mensch anerkennt, ihre Verwurzelung in einer gläubig hingenommenen höheren Notwendigkeit. Sofern sie nicht von den seelenlosen Mächten des wirtschaftlichen Getriebes *aufgezwungen* sind, werden sie *willkürlich* übernommen, und die subjektive Freiheit wird sie abschütteln, wo ihr Druck allzu lästig wird. Arbeiter streiken, Arbeitgeber sperren aus, Ehegatten lassen sich scheiden. Und erfolgreichste Zeitgenossen beginnen ihre Laufbahn als Stiefelputzer oder Zeitungsverkäufer, setzen sie fort als Photographen, Geschäftsreisende, Journalisten und beenden sie als Trustmagnaten: zu keinem Beruf haben sie ein notwendiges Verhältnis, in jedem sind sie bereit eine Rolle zu spielen. Gewiss ist auch diesen Menschen der Unterschied von *Gut* und *Böse* wichtig; aber es ist unmöglich, in den Pflichten, die sich aus den stets unsicheren Beziehungen der Menschen zueinander ergeben, mehr zu sehen, als Funktionen eines bedingten Daseins, mögen sie auch von altmodischen Pedanten gelegentlich über Gebühr ernst genommen werden.

Es ist das Übergewicht des *Intellekts* im modernen Leben, das diesem die Möglichkeit substantieller Verwurzelung genommen hat. Der Intellekt ist freischwebende Geistestätigkeit; er ist heimatlos: seine Leistungen haben zu dem Lande, in dem sie in die Welt getreten sind, nur ein zufälliges Verhältnis—anders als Buddhismus und Konfuzianismus, römisches Recht und ‘common law’, die Skulpturen des Praxiteles und die französische Gotik, die Gemälde Raffaels und die Dramen Calderons: in jedem solchen Werke stellt sich der Genius seines Volkes dar; wer es liebt, liebt etwas von dem Wesen dieses Volkes. Allein auch Religion und Sittlichkeit, Recht und Kunst sind nicht sicher davor, von dem freischwebenden Intellekt unter seine Botmässigkeit gelockt, 'intellektualisiert' zu werden. Unverkennbar tritt diese Tendenz heute in der Baukunst des Corbusier zutage: in ihr setzt sich keine nationale, in einem bestimmten Volk verwurzelte Kunstübung fort, sondern sie ist Verneinung alles dessen, was aus der Verantwortung gegen ein geschichtliches Erbe heraus geschaffen worden ist und geschaffen werden könnte. Die 'machine à habiter' ist wie ihr bewundertes Vorbild, das Automobil, eine Schöpfung des Intellekts, für Moskau dieselbe wie für Paris. 'Schönheit' im Sinne einer nationalen Kunstübung wird man von der Wohnmaschine nicht mehr verlangen: das intellektualisierte Auge fordert *Zweckmässigkeit.* Das Wort 'Schönheit' schliesst Beziehung auf Absolutes in sich; 'Zweckmässigkeit' ist immer relativ—relativ wie der Gegensatz des Guten gegen das Böse dort, wo die intellektualistische Auflockerung des sittlichen Lebens ihr Werk getan hat: es ist zweckmässig und in diesem Sinne 'gut', eine Ehe zu scheiden, wenn die Gatten finden, dass sie nicht zueinander passen.

Nun ist es in der Tat Aufgabe des Intellekts, das Reich des Seelischen aufzulockern, Vorurteile zu überwinden, den Blick in die Weite zu lenken. Doch nicht, damit der Mensch sich und seine Heimat in der Grenzenlosigkeit des Relativen verliere. *Menschliche* Existenz ist (im Unterschied von allem andern Dasein) *verantwortliche* Existenz: in Auswirkung seiner Verantwortlichkeit hat sich der Mensch seine Erde zur *Heimat* gestaltet. Er hat sich auf ihr eingerichtet, er hat Werke in sie hineingebaut, die die Richtungen zeigen, in denen er den Sinn seines Lebens sucht. Dem einzelnen ist in der geschichtlichen Bestimmtheit der Umgebung, in der er aufwächst, ein Erbe gegeben. Nicht aus toten Objekten besteht ihm die Wirklichkeit, die sich seinem Leben bietet; sondern aus ihr ruft der Geist derer, die den Dingen der Natur diese bestimmte Formung und den sozialen Ordnungen diese bestimmten Zwecke gegeben haben, seine Verantwortlichkeit auf, dem Erbe gerecht zu werden, in das er gekommen ist. Es ist die *sittliche* Aufgabe des Menschen, die gestaltete Welt zu bejahen, ohne sich von ihr binden zu lassen, sie zu bejahen in überlegener Freiheit. Die Verantwortlichkeit, die er in ihr trägt, gilt nicht dem äusseren Dasein der Werke, die er vorfindet und an denen er arbeitet, sondern sie gilt der Unmittelbarkeit des geistigen Lebens, dessen Selbstgestaltung in der Gemeinschaft freilich zugleich Gestaltung von Werken ist: diese Werke sind Stützen des unmittelbaren Lebens (wo eine Katastrophe Häuser, Bibliotheken, Verkehrsmittel zerstört, wird der Pflichtenkreis, in dem die

Betroffenen stehen, auf engere Möglichkeiten eingeschränkt, also das sittliche Leben selbst beeinträchtigt). Auf solche Verantwortlichkeit gegen ein Gemeinschaftsleben bezogen, sofern dieses eine Geschichte und durch sie eine Heimat hat, hat der Gegensatz von *Gut* und *Böse* eine Bedeutung, die so wesenhaft ist wie diese Verantwortlichkeit selbst. Ohne sie ist der Mensch nicht menschlich; er kann sich über sie hinwegsetzen, aber nur auf Kosten seines menschlichen Wertes.

Doch die Vollendung der Humanität liegt noch nicht in den sittlichen Ordnungen unseres Lebens. Diese sind mit unaufhebbarer Problematik beschwert; auf jeden Heimatboden ist die Verantwortlichkeit an eine geschichtlich *bedingte* Art, den Sinn des Lebens zu suchen, gebunden, und auf geschichtlich bedingtem Lebensgrunde lässt sich nichts *absolut* Berechtigtes verwirklichen. Feindliche Begegnungen zwischen den Gemeinschaften, von denen sich jede für ein gestaltetes Erbe, für eine Heimat einzusetzen hat, können nicht ausbleiben, und oft ist in solchen Zusammenstössen die Menschlichkeit in Frage gestellt. Die Wertmassstäbe des Guten und Bösen erscheinen, solange sie in der Bejahung des gestalteten Daseins ihr Ziel haben, einem geschichtlichen Leben ausgeliefert, dessen Verhältnis zum Geist recht fragwürdig ist. Die wahre Befreiung der Menschlichkeit wird erst dort erreicht, wo nicht mehr Weltbejahung angestrebt wird, aber auch nicht Weltverneinung, sondern wo die Orientierung von der Welt des gestalteten Daseins unabhängig ist: die letzte Tiefe des Menschen ist *Gott*. Ohne ihn ist der Mensch nicht im vollen Sinne Mensch: seine *Tiefe* gehört zu ihm und er zu ihr. *Humanität* meint Pflege des eigentümlich Menschlichen, also Pflege der Verantwortlichkeit (in der umfassendsten Bedeutung dieses Wortes). Wer mit seiner Verantwortlichkeit bedingungslos ernst macht, wird von den Bindungen der Welt gelöst, wird überlegen über Bejahung und Verneinung der Welt. Alles Grösste auf Erden trägt die Züge seiner Heimat. Bachsche Musik ist echtestes Deutschtum. Aber wer könnte diese Musik in sich aufnehmen, ohne die selige Sehnsucht zu fühlen, die den Menschen nicht bloss über die Grenzen seines Vaterlandes, sondern über die Enge des geschichtlichen Schauplatzes der Menschheit emporträgt! Wenn Hölderlin in Hyperions Schicksalslied die grossen Worte schreibt: 'Uns ist gegeben, auf keiner Stätte zu ruhn . . .', so sagt das Wort 'gegeben' trotz der dumpf klagenden Stimmung des Ganzen, dass eine letzte Heimatlosigkeit zu dem gehört, was den Menschen gross macht.

Nach der Lehre des Aristoteles haben alle lebenden Wesen die Beziehung auf ihr Ziel in sich: ‘Entelechie’ heisst dieses Formationsprinzip, das den Weg der Selbstverwirklichung bezeichnet. Diese Philosophie nimmt ihre Orientierung im Bannkreis des gestalteten Daseins. Aber es gibt eine charakteristische Parallele zu dieser Lehre, die jenen Bannkreis überschreitet, die indische Lehre vom *Dharma.* Nach ihr ist die Erfüllung unseres Wesens Selbsthingebung. ‘Dharma—sagt Rabindranath Tagore—ist der Endzweck unseres Seins, der in uns wirkt. . . . Die höhere Natur im Menschen strebt immer nach etwas, das über sie hinausführt und doch ihre tiefste Wahrheit ist, das fordert, dass sie sich ihm ganz opfere, und macht, dass sie in dem Opfer selbst ihren Lohn findet. Dies ist des Menschen Dharma’ (Sādhanā). In der Welt erweist sich die göttliche Tiefe, indem sie *sich opfert.* Nur in Freiheit kann solche Selbsthingebung geleistet werden; nur Gott kann die Opfer, die über die Mängel des bloss Sittlichen emporheben, vom Menschen fordern—Gott, der die letzte Tiefe des Menschen selbst, die Erschliessung seiner vollkommenen Freiheit ist. Eine letzte Bedeutung des *Guten* enthüllt sich hier: aber dieses ist nun nicht mehr eine Norm, deren Befolgung zur allgemeinen Pflicht gemacht werden dürfte (nur in symbolischen Handlungen bringen die verschiedenen Konfessionen ihren Glauben an den Sinn solchen Opfers zum Ausdruck)—es ist Offenbarung *der Güte selbst* als der wesenhaften Wirklichkeit. In der Welt des religiösen Lebens steht ihr als *böse* das willentliche Sich-Verschliessen gegen die Offenbarung gegenüber; aber nur in den Zusammenhängen des von Gegensätzen bestimmten Menschendaseins gibt es dieses Böse: die sich im Opfer bezeugende Güte ist gegensatzlos. Die *Unterscheidung* des Guten und Bösen reicht nicht in ihre Tiefe.

Allein neben der Feststellung, dass in der religiösen Sphäre des menschlichen Lebens die Widersetzlichkeit gegen die Offenbarung als böse gelten muss, darf nicht vergessen werden, dass die Annahme der Offenbarung nur dort gut heissen darf, dass sie überhaupt nur dort Annahme der Offenbarung und nicht eines Aberglaubens ist, wo sie in voller geistiger Freiheit geschieht. Nur wo das *Gewissen* seine begnadende *Befreiung* erlebt, hat es das Recht, einer Offenbarung zu glauben. Der aus Feigheit oder aus dem Verlangen nach gesellschaftlicher Behaglichkeit oder nach gesellschaftlicher Geltung hervorgehende ‘Glaube’ ist sittlich würdelos und ohne religiösen Wert. Nun ist freilich oft gesagt worden, dass der Mensch, sowie er *sittliche Würde* beanspruche, zum Feind der Religion werde: diese sei theonom und verlange Beugung des

Gewissens unter die göttliche Offenbarung; nicht auf die persönliche Überzeugung des Menschen komme es an, sondern auf seinen Gehorsam gegen die Befehle Gottes. In der biblischen Erzählung von Abraham, der sich anschickt, getreu dem ihm von Gott gewordenen Auftrag seinen Sohn Isaak zu schlachten, ist dem jüdischen Volk und den christlichen Völkern ein eindrucksvolles Bild solchen Gehorsams vorgestellt worden. Dass die ursprüngliche Tendenz jener Erzählung gegen den Wahn gerichtet war, Gott fordere die Opferung der Erstgebornen, tut hier nichts zur Sache: in der Erziehung der Menschheit wirkt die Erzählung seit Jahrtausenden, indem sie schon das Kind mit dem Gedanken bedrängt, dass es etwas Böses gewesen ist, das zu tun der gute und fromme Abraham bereit war, und dass Gott, wenn auch nur versucherisch, erprobt hat, ob Abraham ihm mehr gehorcht, ihn höher achtet als die eigene Überzeugung mit dem Wertunterschied von Gut und Böse. Solche Entgegensetzung des sittlich Guten und des göttlichen Willens, dem kindlichen Gewissen eine Pein—kann sie zugegeben werden? Durfte Abraham die eigene Überzeugung preisgeben? Konnte er die Stimme, die ihm den grausamen Befehl zurief, als göttlich anerkennen, wenn nicht die eigene Überzeugung ihn dazu antrieb? Aber wie konnte ihn eigene Überzeugung treiben, einen Befehl, Böses zu tun, für göttlich zu halten? Nur indem er sich wegwarf an eine äussere Autorität, die die Behauptung aufstellte, sie sei göttlich, konnte sich Abraham entschliessen, seinen Sohn zu schlachten. Es ist das typische Verhalten des *schwachen* Menschen, des Menschen ohne sittliche Würde, gegenüber der Aufrichtung und Durchsetzung einer *Priesterherrschaft.* Die biblische Erzählung von dem Gehorsam Abrahams ist einer solchen überaus dienlich, indem sie den Gottesgedanken mit einem Angstkomplex und das Gewissen mit Minderwertigkeitsgefühlen beschwert. Sie schafft das Gefühl des 'unwürdigen armen Sünders', der den Gedanken sittlicher Autonomie als anmasslich von sich weist und dankbar die 'Ethik der Gnade' annimmt, die ihm von seinen Priestern dargeboten wird.

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In *einem* Punkte freilich hat jene 'Ethik der Gnade' recht: das *Gewissen* ist nicht lautere und unverfälschbare Stimme Gottes. Es formt sich in geschichtlich bedingten Lebenszusammenhängen; von ihnen ist es gehoben, von ihnen ist es gedrückt. Reinheit des Gewissens, sichere Bestimmtheit des Urteils über Gut und Böse in den Wirrnissen des Daseins ist eine Aufgabe, die in zahllosen Fällen unlösbar ist. Und doch hat der Mensch kein besseres, überhaupt kein anderes Richtmass als sein Gewissen. (Nur kann dieses so kleinmütig geworden sein, dass es selber sich nicht mehr anzuerkennen wagt.) Das Gewissen steht in Bedingungen der Zeit, aber—es ist nicht ihr Produkt. Mit seinem Gewissen hat der einzelne an der Aufgabe der Gemeinschaft teil über sich selbst hinauszukommen; in seinem Gewissen tut sich ihm das übergeschichtliche (die geschichtlichen Lebensbedingungen richtende und bestimmende) Prinzip der Menschlichkeit kund. In ihm trägt er Mitverantwortlichkeit dafür, dass die sittliche Freiheit in den Gemeinschaftszusammenhängen, in denen sein Leben verläuft, grösser, der Druck der gesellschaftlichen Verhältnisse, der auf den Gewissen lastet, leichter werde. Das Gewissen ist durchaus keine unveränderliche Grösse. Jedes Zurückbleiben hinter den verantwortlichen Aufgaben, jeder Mangel an Strenge schwächt es, Treue in der Pflichterfüllung stärkt es. Dem tapferen Willen zur Verantwortlichkeit werden Unterschiede zwischen Gut und Böse auch da erkennbar, wo der Leichtsinn nichts von ihnen ahnt. Geschärfter Wille zur Klarheit führt zur Einsicht in die Problematik, von der das Bewusstsein des Guten und Bösen in den sittlichen Gemeinschaftszusammenhängen belastet ist, und zeigt, dass jeder Versuch, sie durch Machtgebote oder Machtkämpfe zu besiegen, unzulänglich bleiben muss. Mit äusseren Mitteln können keine Mängel des sittlichen Lebens beseitigt werden. Selbst die Opfer, die sich dem Aufbau der menschlichen Gesellschaft weihen, weisen nur dann über jene Problematik empor, wenn sie nicht für die Erringung äusserer Macht—ein geschichtlich bedingtes Ziel—dargebracht werden, sondern wenn ihr Sinn die Offenbarung der gegensatzlosen, der allumfassenden Güte ist.

In diesem göttlichen 'Jenseits von Gut und Böse' kommt die Problematik, mit der zu kämpfen dem Gewissen aufgegeben ist, zur Ruhe. Nietzsche lässt einmal die Paradiesesschlange sagen: 'Gut und Böse sind die Vorurteile Gottes' (Fröhliche Wissenschaft). In Wahrheit ist gerade Gott über diese *Unterscheidung* hinaus. Aber der in die Vieldeutigkeit der Welt verstrickte Mensch hat in ihr, was ihn auf Gott bezogen hält. Solange der Mensch *strebt*, hört sie nicht auf. Ihr Aufhören bezeichnet die *Vollendung* des Menschlichen.

ARE THERE DIFFERENT WAYS OF EXISTING?

G. F. STOUT

(*St. Andrews*)

I HOLD with Aristotle that the verb 'to be' is πολλαχῶς λεγόμενον. To understand what this means we must explain in what way the several modes of being are distinguishable from each other. Evidently there are no species of being in the same way as there are species of colour or of shape, where all that is required for reference to a common genus is comparison of the intrinsic characters of the several species taken separately. But there is another alternative. We may take as *summum genus* the essential constituents of a complex whole such as a watch or living organism as such. Then all that is indispensably required to constitute species of the common class is that they should all be indispensable ingredients in the constitution of the whole. What distinguishes them from each other is that each contributes to the constitution of the whole in its own distinctive way. These conditions being fulfilled it does not matter how far, taken severally, they are alike or different in their intrinsic nature.

There will thus be two steps in the logical division of being: (1) the distinction of complete being from its essential constituents; (2) the distinction of these constituents from each other, e.g. possible existence, real existence, the existence of universals, &c.

In principle this is the way in which Aristotle proceeds. Where I cannot follow him is in his account of complete being. He identifies this with the concrete individual considered as a member of a specific natural kind. Thus for him an individual man, or a specimen, say, of sulphur is a concrete being in the sense required. But concrete individuals are members of a more comprehensive whole, and have no isolated and independent existence apart from it. The complete being can only be the universe which comprehends whatever in any sense exists, so far at least as this is capable of coming within the range of our knowledge or questioning. But it cannot be properly said to comprehend itself. Hence I would suggest that if we are not to lose sight of an essential distinction we ought not to say that it exists. The word *exist* originally means 'to step out or forth, to come forth, emerge' (Lewis and Short). In its metaphysical use this meaning has been partially lost. But the implication still remains that what is properly said to exist presents itself within a whole. 'X exists' and 'there is X' are synonymous expressions. But when we say 'there is X' the 'there' stands always for some field of being within which X presents itself, and in the long run it stands for the universe. If we assert that 'there is the universe' we are simply asserting that 'the universe is'. And this is an assertion we have ordinarily no occasion to make except in philosophy. Ordinarily we take the universe of being for granted, and confine ourselves to judgements and questions concerning what exists within it.

Truth and falsity are special cases, though most important cases, of what, adopting a scholastic term, we may call 'intentional existence'. By this I mean the sort of existence that belongs to objects or to characters of objects only inasmuch as they are present to a mind in some way cognizant of them, and interested in them. The contrasted correlative of 'intentional' is best expressed by the word 'objective' used in its strictly modern application. I say 'intentional' rather than 'subjective' because the term 'subjective' is confusingly ambiguous. It may stand for mental states and processes such as perceiving, thinking, willing, desiring, &c. In this sense it is not synonymous with 'intentional'. Truth and falsity, for instance, are not mental states or processes. They are not even characters primarily predicable of mental occurrences. When we say that a belief is true we primarily mean that what is believed is true. It is therefore a character of the object of the mental process of believing. We may call it subjective only if we mean by this that it is a subjectively determined character of the object. I use the term 'intentional' to mark off unambiguously this special sense of 'subjective'.[1]

Are there objects of thought having a purely intentional existence so that they are not objective at all but owe their being entirely to being thought of? Are there such entities as Descartes and Locke called 'ideas'? In particular, can we give any other account of what is said to exist only in our imagination?

In order to illustrate my general view by a special application, I shall briefly consider the question: Wherein does imaginary existence consist? One answer we may reject straightway. It is that the existence of imaginary objects is simply the existence of mental processes in the minds of those who imagine them. The occurrences in the mind of Dickens when he wrote *Martin*

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[1] Mr. Johnson's word 'epistemic' is too narrow for my purpose. It covers intentional existence only so far as this is important for Logic.

Chuzzlewit, and in your mind and mine when we read it, really exist and exist as actual fact. Mr. Pecksniff does not and never did exist as actual fact. There are many imaginings of Mr. Pecksniff occurring separately in different minds. But there is only one Pecksniff whom they all think of.

Is the existence of Pecksniff then purely intentional? Does it consist merely in being thought of by Dickens and others? To me, mere being for thought seems internally contradictory. A thing may owe a certain character to its relation to the mind which minds it. But its own being cannot merely consist in being related to something else. Because a book is lying on a table, the table has the relational character of being under the book. But the existence of the table cannot consist in the fact that the book is lying on it. Just as little can the existence of an object of thought consist in being thought of.

If then Pecksniff is to have intentional existence as a creature of the imagination, he must as a precondition of this in some way exist objectively. Yet he never did really exist as an architect living in Salisbury. But there is only one objective alternative, if any, to real existence—possibility of being real. Pecksniff must be an objective possibility. Is possibility then objective? In some cases at least it clearly is so. When I say that a cork is buoyant, or india-rubber elastic, I am asserting objective facts. But what I am asserting is that the cork under certain possible conditions would float. It is capable of floating in water. What we call the physical properties of bodies are nearly all of this sort. But when we say that 'it may rain to-morrow', or that 'Charles I might have died in his bed', or that 'such a man as Pecksniff might really have lived in Salisbury in the first half of the nineteenth century', have we not to do with a quite different kind of possibility which is purely intentional? I admit that there is a difference. But the difference does not consist in the absence of objective possibility. It is rather that objective possibility is blended with subjectively determined characters which we do not, as a rule, clearly distinguish from it.

(1) 'So far as I know it may rain to-morrow.' An intentional character is indicated in the reference to my knowledge. But the statement certainly does not mean that I do not know whether it will rain or not. What I say is 'so far as I know', not 'so far as I don't know'. What I mean is that there are certain general conditions positively known to me, of such a nature that they must be specifically determined in one or other of different alternative

ways, and that one of the alternatives is rain to-morrow. The possibility is due not to a process in my mind but to the objective situation as having a certain nature.

(2) 'Charles I might have died in his bed.' This does not mean that he might have done so, for aught we know. On the contrary we know that he did not and that in view of all the relevant historical conditions he could not have died in his bed. He died on the scaffold, and this event must have been determined by specific and particular occurrences which made any other alternative impossible. But relatively to more general conditions of the historical situation, his execution and the circumstances which led up to it constitute only one set of possible alternatives among others. Mere possibility is always relative in this way. What is possible *in all respects* is not merely possible but real. But this is no reason for denying that there are objective possibilities which are not realized. Otherwise we should have to deny that buoyancy is an objective property of a cork for the reason that it may never actually float.

(3) 'Such a man as Pecksniff might really have lived in Salisbury in the first half of the nineteenth century.' Here the objective possibility is relative to certain conditions of human life, and more especially to life in Salisbury at the time. Pecksniff is interesting because he is a possible development of such general conditions. It is in reference to the same conditions that he can be considered as true or untrue to nature. The same standard of truth and falsity is not applicable to a fairy tale, because in this the nature of the conditions is far more general and indeterminate. While we keep in mind the internal structure of a beech tree and the mechanism required for emitting articulate speech, we simply cannot imagine the tree speaking. But if we regard it as emitting articulate sound somehow or other, without inquiring how, we can imagine it speaking.

Besides objective possibility imaginary existence essentially involves intentional existence of a distinctive kind. In the play of imagination, we do not seek to determine whether the objective possibilities are realized or not, or what would really follow if they were realized. Considered merely as a possibility Pecksniff is sufficiently impressive and entertaining to occupy our attention vividly and agreeably without raising such questions.

He is not only one objective possibility among others; he is a possibility discovered by Dickens, followed up by him in detail, and described for us in the pages of *Martin Chuzzlewit*.

The general conditions of human life considered by Dickens present a field for endless possible developments, even in the way of human hypocrisy. Among these he discovered one, fixed on it and worked it out in vivid detail, so that it can be permanently referred to by the proper name 'Pecksniff'. It is in this sense that Dickens created Pecksniff. He did not create the objective possibility, but he fixed and defined it for permanent reference.

With reference to his intentional existence, it is true that Pecksniff was really a widower with two daughters, and it is false that he really succeeded in deceiving old Chuzzlewit. Such statements, I admit, mean only that Dickens conceived and described him as a widower with two daughters, and so on. But this leaves quite unanswered the question: What was it that Dickens conceived and described when he conceived and described Pecksniff?

Being a Cambridge man, I can hardly be expected to get through a paper of this sort without using the word 'proposition'. I shall now make good this omission by an attempt to define, on the basis of the previous discussion, what a proposition is. Objectively, a proposition is a possibility; and a possibility is a possibility of being real relatively to certain general conditions. This being so, it has varying subjectively determined characters according to the way in which the mind is occupied with it. The possibility of S being P may be considered in a different way. We may inquire whether S really is P or not. The possibility has thus the intentional character of a *question*. We may assert that S really is or is not P, then we have a categorical judgement. We may assert that if S were really P, R would really be Q. Then we have a hypothetical judgement. We may assert that in reference to the general conditions either S is P, or R is T. Then we have a disjunctive judgement. Again, we may attend to the possibility because taken merely as a possibility we find it interesting. Then we have the play of fancy or imagination. When it depends on our will whether an objective possibility shall be realized or not, then it is a practical alternative. The proposition is something common to all these cases, however they may differ in other respects.

ON THE FOUR TYPES OF ETHICAL JUDGEMENTS

W. TATARKIEWICZ

(*Warsaw*)

IS the distinction between moral rightness and wrongness ultimate? In order to answer the question we must first define what we mean by moral rightness and wrongness. The point is not immediately clear as those terms are equivocal and the judgements of rightness are not only in current parlance, but even in scientific works mixed with other ethical judgements. Of such ethical judgements we must distinguish at least four types, which we will call judgements of *value*, judgements of *rightness*, judgements of *morality*, and judgements of *merit*.

If, for instance, I said that to speak the truth is a good thing in itself independently of its results, and that *caeteris paribus* it is better that the truth should be uttered than that it should be concealed, that is a judgement as to the value of the truth. If, however, I assert that to speak the truth was the best course to follow in a given case, since together with its consequences it produces the maximum of good or at any rate the minimum of evil, that is a judgement of rightness. If, again, I estimate the intention of a person who spoke the truth, that is a judgement of morality. Finally, if I speak of the effort made by the person in question in the way either of overcoming his own reluctance or of exposing himself to painful consequences in order to utter a truth which he regards as right, that is a judgement of merit.

Abandoning examples and speaking in general terms, a judgement of *value* lays down that a given quality or action is in itself valuable without entering into the question whether it does or does not entail undesirable consequences or whether other qualities and actions are still better. A judgement of *rightness* deals with the action conjointly with its consequences and compares it with other possible actions. It decides whether the given action together with its consequences is the best of all action possible in the given circumstances: that is to say, if it is an action which we call 'right'. A judgement of *morality* has to do with the intention of the agent, for a right action can only be described as a moral action if it has been performed for no other reason than because it was right. Finally, a judgement of *merit* has to do with the effort made in performing the moral action, as it is the effort which decides as to the merit.

These four types of judgements, although they are related to one another, nevertheless have to do with different questions. An action which creates a certain value is not necessarily a moral action: a right action is not always moral and a moral action is not always meritorious. For instance, to utter certain truth may entail much evil, far more than would have been occasioned if it had been passed over in silence. In such a case the speaking of the good, although good in itself, will, none the less, not be right. To speak the truth, even if it is right to do so, may proceed not from the intention to act in a right manner, but from interested motives, in which case it will not be moral. Further, even if it is moral in its intention it may proceed from a natural impulse, and not entail any effort, in which case it is not meritorious.

The extent of the objects which may be the subject of such judgements is different in the case of each type. It is widest in the case of judgements of the first type, the subject of which may be objects of any kind, seeing that objects of any kind may be good things: such are not only things morally good, e.g. justice, generosity, or courage, but also things aesthetically valuable, not to mention health, life, and things of material value. Only actions can be the object of judgements of the second type, for only actions, that is to say, psychophysical facts, can be right. Judgement of the third type have as their object only purely psychical facts such as the intention of the will. The object of judgements of the fourth class is also psychical, seeing that they have to do with the effort required to carry out a moral action.

Further, the nature of each of these judgements is different. Judgements of the first type may be evident, not containing any element of uncertainty nor calling for any empirical test, that is to say, they are *a priori* judgements. That justice, generosity, and courage are valuable just as are health and the fullness of life, is surely obvious to every one and certain: it is something which does not require the test of experience, but is accepted by us as an axiom before we undergo experiences, which in fact we evaluate in accordance with that axiom. The nature of such judgements was already well known to Socrates and Plato. The nature, however, of a judgement is entirely changed if we wish, even in a small degree, to evaluate an action together with the consequences it entails and in comparison with other good things, that is to say, if we pass from a judgement of value to a judgement of rightness. There is always an element of uncertainty in these latter judgements which, as they take into consideration consequences, reach into the future. Further, there is always an empirical element in them as it is only on the basis of experience that we can know what consequences a given fact entails. Judgements of the third and the fourth type, having to do, respectively, with morality and merit are also different: they have to do with the intention of the action or effort exerted, that is to say, with something which is known only to the active agent by introspection. This state of things was known to the ethical writers of antiquity, namely, to the Stoics, who, taking the intention into consideration, distinguished moral from lawful actions, pointing out that the only person who can evaluate the morality of an action is the doer of it, while spectators can merely judge of its legality.

All four types of judgements imply evaluation, but in each case of a different kind. There is only one of them which, having a normative character, can be regarded as a prescription and made to form the basis for duties whose execution could be supported by sanctions—to wit, judgements of rightness. Only right actions can be reasonably prescribed and their execution demanded. It is not possible to prescribe values unless it is clear that they do not entail undesirable consequences, i.e. are right. Further, it is not reasonable to prescribe an effort, seeing that some persons can act well without an effort.

It has become customary to link up the ethical doctrines, which have appeared in the course of time, in a single historical series under the title 'history of ethics'. This series is very irregular and it is not surprising that, if ethical doctrines have to do with various problems, judgements also are of various kinds. Thus, the ethics of everyday life operate exclusively by means of judgements of values, which we have placed under the first type. The same is true of the ethics of Socrates and of Plato in the latter's early phase. In the ethics of Aristotle, on the other hand, we already have judgements of rightness. A considerable portion of the religious ethics which prevailed especially in the Middle Ages are concerned primarily with the enunciation of judgements of merit. The ethics of Kant had, as their object, morality in the sense of the intention of the action.

Since there exist a number of allied but different judgements of values, the question arises which judgements are to be preferred in evaluating a person. When we express an opinion as to the value of persons, are we to take as the basis of our judgement the value of their characters or the rightness of their actions or their intentions or the effort exerted to perform right actions? The last point of view seems to go deepest and judgements of merit would in consequence appear to be the proper basis for evaluating a person. It is, however, indisputable that good does not come equally easily to all persons: some tend towards it instinctively while with others an effort is necessary in order to do good. If we were to assess them by the standard of the absolute good attained by them, we should be unjust to persons of the latter class. On the other hand, if we take the effort as our standard, we shall be unjust to the former class which is composed of persons who, being endowed with a good nature, do not need to make an effort in order to live a holy life: but their life, even if lived without effort, is none the less good.

From the above the following deductions may be drawn. No one of the judgements between which we have discriminated may be regarded as more important or more real than the others. There is equal justification (*a*) for judging a person according to the scale of the good intended by him and (*b*) for judging him according to the effort which he has put forth to achieve good. We must admire not only the man who lives a holy life, even if he lives it without effort, but also the man who exerts all his strength to attain perfection even if unfortunate circumstances limit the result of his effort. There is no reason or need for us to reduce these judgements to a common type; all we need do is to distinguish between them and be conscious that each of them deals with a different subject. To reduce to one such different standards would only be necessary if we were obliged to draw up a balance sheet of life of each individual and evaluate him according to one ultimate standard; that, however, is a task for God and not for man.

DIE TRADITIONELLE LOGIK IN NEUER BELEUCHTUNG

D. MICHALTSCHEV

(*Sofia*)

VON dem logischen Denken als eine *Tätigkeit des Bewusstseines* wird überall gesprochen. Aber trotz des ehrwürdigen Alters dieser Ansicht, werden wir uns die Frage erlauben: kann bei dem logischen Denken von irgend einer Tätigkeit die Rede sein? Während wir logisch denken, während wir mit gewissen Begriffen 'operieren', oder zu bestimmten Schlüssen kommen, worin äussert sich hier die *Aktivität* unseres Bewusstseines?

Fragen wir uns vor allem, was heisst: etwas ist tätig? Über diese Frage schweigen die bisherigen Vertreter der Logik klug, oder sie antworten bescheiden: das Denken ist ein *Bearbeiten* der Denkinhalte! Das aber ist keine Antwort, denn ein rohes Material *bearbeiten*, es einer gewissen 'Fabrikation' unterziehen, das heisst nichts anderes als *tätig* in Bezug dieses Materials sein. Wir wollen aber wissen, in *welchem Sinne* unser Bewusstsein aktiv ist, sofern es denkt, sofern es die Denkinhalte bearbeitet.

Wir sind von neuem vor der Frage: was heisst, etwas ist tätig? Eine Tätigkeit ausüben, tätig sein, das heisst vor allem eine notwendige Bedingung für das Auftreten einer Veränderung sein. Wir sagen: 'Wegen der Tätigkeit der Sonne, fing es an zu tauen,' d.h. wegen der Tätigkeit der Sonne ist in der Welt eine bestimmte Veränderung eingetreten. Da aber, wo etwas als notwendige Bedingung für das Eintreten einer Veränderung auftritt, sagen wir davon, das es ein *Wirkender* ist. Von 'Wirken' aber kann nur dann gesprochen werden, wo eine Wirkung schon da ist.

Also, etwas 'tätig sein' heisst jetzt: etwas wirkt, etwas ist wirkende Bedingung für das Auftreten irgendeiner Veränderung, oder mit anderen Worten gesagt: notwendige Bedingung für das Auftreten einer Wirkung sein. Daraus folgt wieder: während die traditionelle Logik behauptet, dass das Denken eine Tätigkeit des Bewusstseins ist, will sie dadurch eigentlich sagen, dass das logische Denken in erster Linie ein *Wirken* ist.

Es gibt aber kein Wirken da, wo keine Wirkung, d.h. wo keine *Veränderung* vorliegt. Diese bekannte Tatsache jedoch stellt uns jetzt vor zwei für das Schicksal der herkömmlichen Logik wichtigen Fragen.

(1) Wenn es richtig wäre, dass das Denken ein Wirken ist, was ist dann dasjenige, über das das denkende Bewusstsein wirkt? und

(2) Welche ist die Wirkung, die von diesem Wirken hervorgerufen wird, mit anderen Worten, welche ist die Veränderung, die von dem Wirken 'erzeugt' ist?

Wir fangen mit der ersten von diesen zwei Fragen an. Wenn das Bewusstsein, wofern denkendes, *wirkt*, muss etwas vorhanden sein, über das es sein Wirken ausübt. In unserem Falle, das die Wirkung Erfahrende kann nichts anders sein als das *Gedachte* d.h. dasjenige, was in jedem einzelnen Augenblick Gegenstand unseres Denkens ist. Was ist aber das?

Nehmen wir ein Beispiel. Ich denke mir in diesem Augenblick die Westminster-Abtei. Das von mir Gedachte ist etwas Wirkliches. Es zweifelt niemand von uns, dass die Westminster-Abtei besteht, dass sie eine Realität, ein wirklicher Gegenstand ist. Jeder von uns ist überzeugt, dass wenn er heute, Gott bewahre, stirbt, das Gebäude der soeben erwähnten monumentalen Kirche wird fortbestehen.

Ich denke mir von der Westminster-Abtei: wann sie gebaut worden ist und wieviel ihr Bau seinerzeit gekostet hat. Ich denke über die Grösse, über die architektonische Form derselben, über die Zweckmässigkeit dieser Kirche u.s.w. Nun, wenn es richtig wäre, dass das logische Denken eine Tätigkeit, d.h. ein Wirken wäre, dann müsste ich, wofern ich an die Westminster-Abtei denke, auf ihr als auf etwas Wirkliches *wirken*. Wir haben aber betont, dass es kein Wirken besteht, wo nicht schon eine Wirkung, d.h. eine *Veränderung* da wäre. Welche ist aber die Veränderung, die ich auf das von mir gedachte Gebäude *hervorrufe*? Kann man denn ernst behaupten, dass die Westminster-Abtei, weil sie von mir gedacht, niedriger oder enger geworden ist, dass sie ihre Form oder Farbe deshalb verändert hätte? Es versteht sich von selbst, dass davon keine Rede sein kann. Wo das *Wirkliche* Gegenstand des logischen Denkens ist, da erweist sich die Formel 'Denken = Wirken' sinnlos, weil sie einen Widerspruch in sich enthält. Wenn die Westminster-Abtei Wirkliches ist, so heisst das vor allem: es ist etwas, das in seinem Bestehen von den Gedanken von Hans, Kunz usw. *unabhängig* ist. Derjenige aber, der das Denken in einem Wirken und dabei in einem Wirken über das Wirkliche verwandelt, der setzt voraus, dass das Wirkliche etwas von ihm, etwas von der *Willkür* seines Gedankens *Abhängiges* ist. Der Schluss von dem bis jetzt Dargelegten wird folgender sein:

das logische Denken (als Tätigkeit des Bewusstseins, d.h. als Wirken), wofern es Denken eines Wirklichen, ist *unmöglich* und hat *keinen Sinn.*

Es werden aber viele fragend hinzufügen: Wenn wir von dem logischen Denken als von einer *Bewusstseinstätigkeit* reden, so bezeichnet denn nicht das Wort 'Tätigkeit' vielleicht etwas vom Wirken Verschiedenes? Anders ausgedrückt: hat das Wort 'Tätigkeit' nicht noch irgendeinen anderen besonderen Sinn? Freilich, es hat noch einen! Wir sagen öfters, etwas ist tätig, wenn *es selbst sich verändert* und als sich Veränderndes wirkt. Wenn z.B. die Lokomotive, die den Zug führt, in Bewegung ist, so sagen wir, sie sei 'tätig'. Es ist zwar nicht nur die Lokomotive, die sich dabei bewegt. Es bewegen sich auch die Wagen. Mit der Lokomotive verändern sich auch die letzteren. Und doch, niemand wird sagen, dass die Wagen tätig sind. 'In Tätigkeit' ('tätig') ist nur die Lokomotive. Sprechen wir in diesem zweiten Falle von '*Tätigkeit*', so interessieren wir uns nicht von der Wirkung, welche die Maschine hervorruft, sondern wir haben vor Augen ausschliesslich die *Veränderung der wirkenden Maschine selbst.*

Übertragen wir nun diesen zweiten Sinn des Wortes 'Tätigkeit' auf das menschliche Bewusstsein, so wird sich Folgendes herausstellen. Wer denkt (es denkt immer das Bewusstsein), der *ist tätig, weil er sich selbst verändert*! Und sofern man das Denken als eine Tätigkeit des Bewusstseins bezeichnet, so würde das hier heissen, dass das denkende Bewusstsein, wofern es seine 'Inhalte' wechselt, ist gewissen Veränderungen ausgesetzt.

Das ist zweifellos richtig, da das Bewusstsein sich jeden Augenblick verändert. Während aber der Logiker vom Denken als eine '*Bewusstseinstätigkeit*' redet, will er garnicht sagen, dass es das denkende Bewusstsein selbst ist, das sich verändert, sondern er hat *das Gedachte*, den *Gegenstand des Denkens* vor Auge. Nicht *ich* verändere mich, sondern es verändert sich *dasjenige*, was ich mir denke. Und wer sich die Westminster-Abtei denkt, der denkt nicht sich selbst, sondern er denkt sich etwas *anderes* als sich, etwas von dem denkenden Bewusstsein *Verschiedenes.*

Und obendrein, wenn die *Bewusstseinstätigkeit*, Denken genannt, mit den Veränderungen des Bewusstseins *gleichbedeutend* wäre, dann würde die Logik nur ein Teil der Psychologie sein, da es gerade die letztere ist, die sich mit den Bewusstseinsveränderungen und mit der Gesetzmässigkeit, nach deren sie geschehen, beschäftigt.

Wir gelangen dadurch zu einem vollkommen trostlosen Ergebnis. Mit der populären logischen These, nach der das Denken eine Tätigkeit des Bewusstseins ist, sind wir immer noch nicht imstande irgendeinen Sinn zu verknüpfen.

Und doch diese jahrhundertealte Lehre würde nicht leben und sich mehr als 2000 Jahre behaupten können, wenn sie wirklich keinen Sinn enthielte. Sie erhält aber ihren Sinn dann nur, wenn wir die *Voraussetzung* verstehen, auf die sie aufgebaut ist. Eine solche Voraussetzung war und bleibt die sogenannte *Bildtheorie*. Diese letztere ist es, die den von uns klargestellten Widerspruch,—der die Auffassung von dem logischen Denken als eine Bewusstseinstätigkeit unmöglich und widersinnig herausstellt—verhüllt und unschädlich macht.

Nach der Bildtheorie können wir uns der Wirklichkeit *selbst* nicht bewusst werden. Was 'in unser Bewusstsein' gelangt, das ist *nicht der wirkliche Gegenstand selbst*, sondern das sind nur seine 'Wirkungen', seine 'Bilder', nur die 'Empfindungen', 'Wahrnehmungen', 'Eindrücke' und 'Ideen', die der wirkliche Gegenstand 'im Bewusstsein' des erkennenden Menschen hervorruft. Aber *eines* ist nach dieser Theorie 'die Wahrnehmung von dem wirklichen Gegenstand' und *anderes* ist dieser 'Gegenstand selbst'. Eines ist die Idee als Bild 'in dem Bewusstsein', anderes ist der wirkliche Gegenstand 'ausserhalb des Bewusstseins'. Die wirklichen Dinge sind *unabhängig* von dem Bewusstsein, während die Empfindungen, Wahrnehmungen, Eindrücke und Vorstellungen sind etwas vom Bewusstsein abhängiges und als solches befindet es sich immer '*im* Bewusstsein'.

Das ist die wissentliche oder unwissentliche Voraussetzung der herkömmlichen Logik! Wer einmal sich auf diese Position zurechtgemacht hat, für den besteht *wenigstens scheinbar* keine Schwierigkeit zu behaupten, dass das logische Denken eine Tätigkeit des Bewusstsein ist. Und wahrlich, wofern wir denken,—lehrt die traditionelle Logik—sind wir tätig, und wirkend, wir rufen also gewisse Veränderungen hervor in dem, dessen wir uns bewusst sind, oder das von uns Gedachte ist. Da aber dies, was wir denken, sich als etwas 'Unsriges', *Subjektives*, von unserer psychophysischen Organisation Bedingtes, sich 'in dem Bewusstsein selbst Befindliches' herausstellt, so ist es ganz natürlich, dass wir es verändern, es bearbeiten, trennen, verbinden, analysieren, synthesieren, es gegenseitig beziehen usw. können. Kurz gefasst, wir können verschiedene 'Operationen' mit ihm unternehmen. Davon geschieht an der Wirklichkeit *selbst* nichts! Erst jetzt wird uns wenigstens scheinbar der Sinn der Behauptung begreiflich, dass das denkende Bewusstsein, insofern es tätig ist, auf das Gedachte wirkt.

Wenn wir jetzt auf die traditionellen logischen Lehren von den Formen des Denkens, von den Gesetzen und Normen des Denkens, von der Begriffsbildung, von dem synthetischen Charakter des Urteilens, von der Bildung der Schlüsse usw. zuschauen, so werden wir leicht ersehen, dass alles dies einen Sinn *nur auf dem Boden* der Bildtheorie hat, die ihrerseits die Voraussetzung der ganzen traditionellen Logik ist.

Wenn die Logik von den Denkformen spricht, so hat sie vor allem diejenigen besonderen Arten und Weisen vor Augen, in denen sich die *Denktätigkeit* 'äussert'. Drei sind die Grundformen des logischen Denkens: Begreifen, Urteilen und Schluss.

Die erste Frucht der Denktätigkeit—lehrt die bisherige Logik—das sind die *Begriffe*. Das denkende Bewusstsein bildet gerade sie zuerst. Dieses Bilden aber geschieht, wenn der Mensch eine Reihe von Fällen vergleicht, indem er das Unwesentliche für die letzteren abseits legt und diejenigen Merkmale, die für alle betrachtende Fälle wesentlich sind, fixiert. Die, auf diese Weise gebildeten Begriffe werden nun von uns verknüpft und wir kommen auf synthetischem Wege zu einer neuen Gegebenheit—das sind die *Urteile*. Sind aber einmal die Urteile vor uns, wir können uns aus ihnen zu einer noch anderen Gegebenheit erheben, das sind die *Schlüsse*.

In allen diesen drei besonderen Denkformen haben wir mit verschiedenen *Bewusstseinstätigkeiten* zu tun. Bei dem Begriff, bei dem Urteil und Schluss '*bearbeitet*' der menschliche Geist—nach der traditionellen Logik—den 'Denkinhalt', d.h. er *wirkt* auf ihn.

Jetzt verstehen wir auch den Sinn der sogenannten 'Gesetze', bezw. 'Normen' des Denkens. Damit das Bearbeiten des Denkinhaltes nicht *willkürlich* geschieht, so muss es einer gewissen *Gesetzmässigkeit* unterstehen. Gerade letztere ist es, die wir in dem 'Gesetz' der Identität und des Widerspruchs, in dem 'Satz' von dem zureichendem Grunde und in dem Prinzip von dem ausgeschlossenen Dritten geäussert finden. Es kann ein logisches Denken, d.h. ein Bearbeiten und Ordnen der Denkinhalte keineswegs gültig sein, wenn es von diesen bekannten 'Gesetzen', 'Prinzipien', 'Sätzen' oder 'Normen' des Denkens keine Rechnung trägt.

Indem wir nun die Grundvoraussetzung der bisherigen Logik abseits legen, werden wir uns jetzt einige Zweifel erlauben, mit denen wir das bislang Dargelegte abrunden wollen.

(1) Die traditionelle Logik spricht gerne von einer *Begriffsbildung*. Um mir einen Begriff von der Universität zu bilden, fange ich an, das Gemeinsame der Universitäten von Sofia, Belgrad,

Wien, Oxford usw. zu suchen. Nun, während ich Studienhalber in Wien angelangt bin, warum erstrecke ich meine Aufmerksamkeit gerade auf die dortige *Universität* und warum gehe ich nicht irgend ein *Gymnasium* oder *Kirche* dieser Stadt zu studieren? Zeigt diese meine Auswahl nicht, dass ich *schon weiss* was 'Universität' ist? Zeigt das nicht, dass ich mir das *Gemeinsame* 'Universität' *schon* bewusst bin? Beweist das nicht, dass ich bereits den Begriff 'Universität' besitze? Jede 'Bildung' eines Begriffes durch ein derartiges Suchen und Feststellen des Gemeinsamen und Fortwerfen des 'Unwesentlichen' ist ein widerspruchsvolles Verfahren, das dasjenige *voraussetzt*, das angeblich gewonnen und gebildet werden soll!

(2) Jeder Begriff soll *Gebilde* des menschlichen Geistes sein! Jedes Bilden aber setzt eine Reihe von 'Denkelementen' voraus, aus denen nämlich das Bewusstsein seine Begriffe '*bildet*'. Gerade diese *Denkelemente* sind es, die die bisherige Logik als '*Merkmale*' bezeichnet oder annimmt und jeder Begriff soll eine *Einheit* von solchen *Merkmalen* sein. Stimmt es aber, dass jeder Begriff eine Einheit von Merkmalen ist? Wenn dies bei den Fällen, wo wir von dem Begriff der Pflanze, des Gebirge, des Federhalters u. dergl. reden, glaubhaft erscheint, so ist es gänzlich unwahrscheinlich da, wo ich meinen Begriff von der Gestalt schlechthin, von der Grösse schlechthin, von dem Ort schlechthin usw. betrachte. Welches sind die '*Merkmale*' der Begriffe Gestalt, Farbe oder Örtlichkeit? Welches sind die Merkmale der Begriffe Ähnlichkeit, Wirken, Beziehen u. dergl.? Ist es nicht augenscheinlich, dass nicht jeder Begriff eine Einheit von Merkmalen ist und dass es also keinen Sinn hat von irgend welcher 'Bildung' der Begriffe aus den mannigfaltigen Merkmalen zu reden, die man als 'Elemente' betrachtet, welche das Bewusstsein angeblich verknüpft oder sie auf irgendeine Einheit bezieht?

(3) Gehen wir jetzt auf die *Urteile* über. 'Das Pferd ist ein Tier.' Das soll ein Urteil sein und soll von zwei Begriffen gebildet werden, die in Einheit gesetzt, in Einheit verknüpft, synthesiert sind. Nun, damit das Bewusstsein zwei Denkinhalte verknüpfen könne, damit es sie synthesieren konnte, ist es unbedingt nötig anzunehmen, dass ehe diese Elemente *vereinigt* werden, sollten sie bis dahin irgendwie *getrennt* da sein. Aber wer von uns könnte sich ein Pferd denken, ohne es bereits als ein Tier zu denken? Wer kann sich eine Röte vorstellen, ohne sich dadurch schon eine 'rote Farbe' zu denken? Wer kann an eine Rose denken, ohne sie als eine Blume, als ein Organismus, oder als etwas Körperliches denken? Beweisen

denn diese und tausende ähnliche Fälle nicht, dass die Ansicht, nach der das Bewusstsein die Urteile aus Begriffen *bildet* sofern es *tätig* bezüglich seiner 'Denkinhalte' ist, dass diese Ansicht in ihrer Grundlage unrichtig ist?

(4) Das von dem Begriff und Urteil gesagte gilt in noch grösserem Masse für die sogenannten 'Gesetze' oder 'Normen' des Denkens. Wie kann von einem 'Satz' oder Gesetz der Identität gesprochen werden, wenn kein Identitätsurteil besteht oder denkbar ist? Wer sagt 'A ist A', der denkt eigentlich nichts, der drückt nichts aus, der meint buchstäblich nichts. Bei jedem Urteil ('Unser Pferd ist weiss'; 'Bulgarien hat 6 Millionen Einwohner'; 'Die Italiener sind katholisch' usw.) drücke ich irgendeine Bestimmung aus und bin mir bewusst, dass etwas davon mir klar oder klarer geworden ist. Wenn ich aber sage, dass 'England ist England', bestimme ich nichts, drücke ich keine Bestimmung aus und es ist mir nichts klarer geworden, wenn ich höre, dass England England ist! Niemand ist in der Lage uns ein Urteil auszusprechen, indem das Subjekt mit dem Prädikat wahrhaft identisch wäre. Sollte man uns auf zwei solch Dinge hinweisen, dann sind sie sicher nicht *identisch*. Sind es zwei so *unterscheiden* sie sich in irgend etwas und wir haben dann kein 'A ist A', sondern wir haben A und A_1, oder A und C. Sollten hingegen A und A *ununterscheidbar* sein, dann sind sie nicht mehr *zweierlei* und vor uns steht ein einziges A: dann aber haben wir mehr kein Subjekt und Prädikat, folglich kein Urteil und keinen Satz.

(5) Der 'Satz des Widerspruches' ist ein neuer Beweis für die unhaltbaren Grundlagen, auf denen die traditionelle Logik ruht. 'Willst du richtig denken, sollst du darauf achten, dass in deinem Denken keine Widersprüche vorkommen'! Das setzt aber voraus, dass der Mensch sich einen Widerspruch denken *kann*, aber er *darf ihn nicht* denken, wollte er, dass sein Denken gültig wäre. Kann aber der Widerspruch überhaupt gedacht werden? 'Hölzernes Eisen', das ist ein Widerspruch: ein Holz, das kein Holz ist! 'Ein sterblicher Unsterblicher', 'ein unveränderliches Ding, dass sich verändert'—das sind ebenfalls Widersprüche. Wer von uns aber kann sich ein hölzernes Eisen denken? Niemand! Man könnte von einem unveränderlichem Dinge, das sich verändert oder von einem Holz, das kein Holz ist reden. Aber etwas anderes ist es zu *reden* und wider etwas anderes zu *denken*! Nicht jeder Satz ist Ausdruck eines Gedankens. Wer sagt 'mein Bewusstsein ist viereckig', der spricht zwar etwas, aber er denkt und bestimmt nichts. Dabei, die Bezeichnung *Widerspruch* (contradictio, proti-

voretschie) ist schon ein Hinweis für uns, dass wir hier nicht mit irgend 'einem *Gedanken*, der wider einem anderen *Gedanken*' steht, sondern dass *der Spruch* wider dem Spruch (dictio contra dictio) steht. Keiner kann sich einen Widerspruch *denken*. Widerspruchsvolle *Urteile* gibt es nicht und kann es nicht geben: es gibt nur widerspruchsvolle *Sätze*.

(6) Nicht geringer ist die Unklarheit in der Lehre bezüglich der anderen zwei 'Denkgesetze'. Der Satz vom *zureichendem Grund* diktiert, dass jedes Denken seinen zureichenden Grund haben soll. Und sofern dieser 'Satz' beansprucht gerade unser *Denken* zu betreffen, wird er ein '*Denkprinzip*' oder ein '*Denkgesetz*' genannt. In der Tat aber bezieht sich dieses sogenannte 'Gesetz' nicht auf unser Denken oder Urteilen, sondern es betrifft ausschliesslich unsere Sätze oder unsere Behauptungen. Wenn ich z.B. *behaupte*, dass in diesem Zimmer warm geworden ist, könnten Sie mich fragen: worauf *gründet* sich diese meine Behauptung? Während die *Ursache* immer eine *wirkliche Veränderung* voraussetzt, die als solche zu erklären ist, von einem Grunde spricht man hingegen lediglich da, wo man nicht mit einer realen Veränderung, sondern mit einer *Behauptung* zu tun hat. Sollte mich jemand fragen, aus welchem Grunde behaupte ich, dass in diesem Auditorium wärmer geworden ist und wenn ich als Antwort auf diese Frage auf das an der Wand hängende Thermometer (25° C.) zeige, wird sich folgendes herausstellen: Das Steigen des Thermometers ist der *Grund* meiner Behauptung, dass in dem Zimmer wärmer geworden ist. Wir stehen dadurch vor etwas paradoxalem. Statt zu sagen, die Erwärmung der Zimmerluft ist die *Ursache* für das Steigen des Thermometers, behaupte ich gerade das Entgegengesetzte: das Steigen des Thermometers ist der *Grund* meiner Behauptung, dass in dem Zimmer warm bezw. wärmer geworden ist! Es ist daraus klar zu ersehen, dass der Grund in der Tat nicht der *Gedanke*, sondern die *Behauptung* betrifft, ganz gleich, ob letztere Ausdruck eines Gedachten oder lauter Phrasen, jeden Inhaltes beraubt sind. Also auch hier entnehmen wir, dass das sogenannte 'Denkgesetz' von dem zureichendem Grunde auf eine *Verwechselung* des Denkens mit den sprachlichen Formen beruht, in denen wir es gekleidet finden oder die den Anspruch einen Ausdruck des Denkens zu sein erheben.

(7) Auf dieselbe Verwechslung fusst auch das vierte,—schon von Aristoteles formulierte—'Denkgesetz' von dem *ausgeschlossenen Dritten*. 'Der Kreis ist ehrlich oder unehrlich.' Entweder das eine oder das andere. Jede dritte Möglichkeit ist ausgeschlossen. Nun

frage ich aber, sind das *Urteile*: 'der Kreis ist ehrlich', oder 'der Kreis ist unehrlich'? 'Ehrlich' oder 'unehrlich' kann aber nur ein *bewusstes Wesen*, nur ein wirkendes oder denkendes und dabei wollendes Bewusstsein sein. In unserem Falle aber fehlt so etwas und darum steckt hinter den Worten 'der Kreis ist ehrlich oder unehrlich' kein Urteil, kein Denken. In diesen Worten haben wir lauter *Sätze*, die keine Urteile zum Ausdruck bringen. Genau so wie bei allen anderen Denkgesetzen, haben wir auch hier mit einer unerlaubten *Verquickung* des Denkens mit dem Sprechen zu tun.

Die Paar Zweifel und Einwendungen, die wir uns erlaubt haben oben gegen die Grundlehren der traditionellen *Logik* zu formulieren, haben den Zweck festzustellen, dass die Grundlage, auf die sie beruhen, nicht recht dauerhaft und kräftig ist. Diese Grundlehren setzen voraus, dass das logische Denken eine *Tätigkeit* des Bewusstseins ist, und das bedeutet in der Tat ein 'Wirken', eine Reihe von 'Operationen', die man über die vom *Bewusstsein* abhängige und 'in ihm enthaltene Denkinhalte' ausübt.

In den letzten 3–4 Jahrzehnten aber ist diese Theorie unter dem Drucke einer so systematischen, gründlichen und vernichtenden Kritik ausgesetzt, dass wir Gründe genug zu behaupten haben, dass die *traditionelle Logik eine bis jetzt noch nie gewesene Krise erlebt.* Die Zeit, wo wir mutig sprechen konnten, dass mein Eindruck von der Gestalt dieses Katheders z.B. ist *eines*, während das wirkliche Katheder selbst etwas *anderes* ist, diese selige Zeit ist längst schon vorbei.

Nach der tiefbohrenden Analyse, die der Nestor der heutigen deutschen Philosophie, *Johannes Rehmke* die Grundlagen der bisherigen Logik in seiner 'Philosophie als Grundwissenschaft' (2. Aufl. 1928) und ganz besonders in seiner 'Logik oder Philosophie als Wissenslehre' (2. Aufl., 1925) unterworfen hat steht die bisherige Logik im Zeichen einer *gründlichen Revision*, die ihr weiteres Schicksal bestimmen wird.

Bei Rehmke finden wir zum erstenmal eine Logik entwickelt, für die das Denken keine Tätigkeit des Bewusstseins mehr ist, eine Logik, die keine 'Denkformen' kennt und keine 'Denkgesetze' braucht. Man kann entschieden behaupten und ohne grossen Scharfsinn beweisen, dass die Logik hier zum erstenmal von dem Joch der Psychologie und der Grammatik befreit wurde. Aber die Auseinanderlegung dieser *neuen Logik*, die sich so revolutionär zu der ganzen bisherigen Tradition verhält, gehört nicht zum Thema meiner heutigen Abhandlung.

DIE BEZIEHUNG DES WISSENSCHAFTLICHEN DENKENS ZUM IDEAL DER ERKENNTNIS

VON BRUNO BAUCH

(*Jena*)

WIRFT man die Frage nach der Beziehung des wissenschaftlichen Denkens zum Ideal der Erkenntnis auf, so wird man ihre Entscheidung nicht herbeiführen können, ohne dass man auch nach der Beziehung von wissenschaftlichen Denken zur Wahrheit, oder kurz nach dem Verhältnis von Wissenschaft und Wahrheit fragt. Das kann freilich nicht bedeuten, dass beide Fragen identisch sind. Vielmehr ist das so zu verstehen, dass die Entscheidung der zweiten Frage in ganz bestimmtem Sinne die Basis für die Entscheidung der ersten abgibt, dass die zweite Frage in grundlegender Bedeutung auf die erste übergreift.

An unserm Problem macht sich aber gleich eine eigentümliche Schwierigkeit bemerkbar. Da es sich um die Beziehung gerade des wissenschaftlichen Denkens zum Ideal der Erkenntnis handelt, ist doch von vornherein offenbar, dass der Gedanke des Ideals selber in wissenschaftlicher Bedeutung verstanden sein will. Negativ gewendet heisst das zunächst: Wir dürfen dei bem Worte 'Ideal' nicht an die Bedeutung denken, die der vulgäre Sprachgebrauch damit verbindet; wir dürfen darunter also nicht ein blosses, von der subjektiven Phantasie entworfenes Wunschbild verstehen, das bald so, bald anders, von Subjekt zu Subjekt, ja für ein und dasselbe Subjekt von Tag zu Tag, von Stunde zu Stunde, von Augenblick zu Augenblick verschieden sein könnte, je nach der Verschiedenheit seines subjektiven Zustandes. Ein solches subjektives Wunschbild wäre nach dem vulgären Sprachgebrauch auch immer eine Art von Traumbild bei wachem Bewusstsein; bezeichnet er ja ausdrücklich auch wache Träumer als 'Idealisten', und kann er sich umgekehrt unter einem 'Idealisten' nichts anderes denken als einen wachen Träumer. Solche vulgäre Auffassung scheidet also gewiss für das wissenschaftliche Denken vom Ideal der Erkenntnis aus. Aber er erhebt sich, wie schon erwähnt, sofort eine weitreichende Schwierigkeit, gerade wenn wir den Gedanken des Ideals in streng wissenschaftlichen, nicht im vulgären Sinne verstehen wollen. Soll das Erkenntnisideal wissenschaftlich gedacht werden, ist dann dafür nicht schon das wissenschaftliche Denken vorausgesetzt; ist das Erkenntnisideal nicht dann gerade ein Plan, ein Wurf, ein Entwurf und als solcher auch ein Produkt des wissenschaftlichen Denkens? Und auf der anderen Seite ist nicht umgekehrt gerade das Erkenntnisideal in dem bestimmten wissenschaftlichen Sinne immer schon für das wissenschaftliche Denken vorausgesetzt, und muss dafür vorausgesetzt sein, dass sich das Denken in einem ganz bestimmten Sinne gerade als wissenschaftliches Denken ausweisen kann? Auf der einen Seite bestimmt also, so scheint es, die Wissenschaftlichkeit des Denkens gerade auch die Wissenschaftlichkeit des Erkenntnisideals, auf der anderen Seite bestimmt die Wissenschaftlichkeit des Erkenntnisideals erst die Wissenschaftlichkeit des Denkens.

Unser Problem scheint also von vornherein auf einen 'circulus vitiosus' zu führen: Eine wissenschaftliche Bedeutung kann auf der einen Seite das Ideal der Erkenntnis nur durch das wissenschaftliche Denken erhalten, insofern es als dessen Plan, Ziel, Entwurf auch dessen Produkt ist; auf der anderen Seite kann dieses Denken gerade als wissenschaftlich nur bestimmt sein, wenn es in bestimmter Weise dem Ideal entspricht, dieses also schon zur Voraussetzung und nicht sum Produkt seines Planes und Entwurfes hat.

Nun, ein simpler 'circulus vitiosus' liegt, wie sich gleich zeigen wird, gewiss nicht vor. Vielmehr werden wir auf einen eigentümlichen dialektischen Problemverhalt geführt. Es ist nicht so, dass wir erst das Ideal aus der Wissenschaftlichkeit des Denkens und dann die Wissenschaftlichkeit des Denkens aus dem Ideal verstehen wollten. Wohl aber ist es so, dass, wenn wir das Ideal der Erkenntnis im wissenschaftlichen Sinne verstehen wollen, wir das immer nur mit dem wissenschaftlichen Denken verstehen können, und dass auf der anderen Seite das Denken, damit es in dem ganz bestimmten Sinne der Wissenschaft eben selber wissenschaftlich sei, auch schon das Ideal der Erkenntnis in dem ganz bestimmten wissenschaftlichen Sinne der Wissenschaft zur Voraussetzung hat. Wenn wir also auf der einen Seite sagen können, die Wissenschaftlichkeit des Denkens bestimmt die Wissenschaftlichkeit des Erkenntnisideals, so bedeutet hier das Bestimmen soviel wie das Verstehen und Erfassen des wissenschaftlichen Erkenntnisideals durch das wissenschaftliche Denken. Sagen wir aber auf der anderen Seite, das wissenschaftliche Erkenntnisideal bestimmt das wissenschaftliche Denken, so bedeutet hier das Bestimmen soviel, wie Bedingung und Voraussetzung und Ziel zugleich für das wissenschaftliche Denken sein.

Die für sich genommenen Gegensätze vereinigen sich also dialektisch in einer übergreifenden Synthese, wenn wir nur scharf zwischen den beiden Funktionen des Bestimmens und damit zwischen dem wissenschaftlichen Erfassen des wissenschaftlichen Erkenntnisideals durch das wissenschaftliche Denken und dem wissenschaftlichen Erkenntnisideal selbst und als solchem unterscheiden. Damit ist auch deutlich geworden, dass es sich nicht um einen 'circulus vitiosus', sondern um eine dialektische Struktur in unserm Problem handelt. Das wissenschaftliche Erkenntnisideal ist also nur scheinbar als ein Entwurf des wissenschaftlichen Denkens auch dessen Produkt oder Erzeugnis; in Wahrheit ist es immer schon Voraussetzung und Bedingung dafür, dass dieses Denken gerade wissenschaftlich ist und es ist auch Ziel für dieses Denken, weil dieses ihm entsprechen muss, wenn es wissenschaftlich sein will. Was das Denken entwerfen kann, das ist jeweils ein Plan zur Erfüllung des Ideals; und was es produzieren oder erzeugen kann, das ist die Arbeit an dieser Erfüllung. Aber auch der Plan, den das wissenschaftliche Denken jeweils entwirft, kann nicht Sache blosser Subjektivität und Willkür des wissenschaftlichen Denkens sein. Sonst führte es zu keinem wissenschaftlichen Ergebnis. Darum muss auch schon der Plan nach Massgabe gewisser Richtlinien entworfen sein, die der Arbeit an der Erfüllung einen Ertrag sichern. Dieser Ertrag ist die wissenschaftliche Erkenntnis.

In der Beziehung zwischen wissenschaftlichem Denken und wissenschaftlichem Erkenntnisideal tut sich also eine eigentümliche Stufenordnung auf, deren unterste Stufe das wissenschaftliche Denken, deren oberste Stufe aber noch nicht, wie es zunächst scheinen mag, das wissenschaftliche Erkenntnisideal, sondern die Idee der Wahrheit ist. Zwischen dieser und dem wissenschaftlichen Denken liegen mehrere Zwischenstufen oder Schichten, deren eine das Ideal der Erkenntnis ist. Dieses fällt also nicht mit der Idee der Wahrheit zusammen, wie wir zunächst vielleicht in etwas naiver Weise anzunehmen geneigt sind.

Wir haben einstweilen freilich nur in Form einer Behauptung die Idee der Wahrheit als oberste Stufe eingeführt und von einer Stufenordnung gesprochen, ohne den Zusammenhang dieser Stufen oder Schichten aufzuweisen. Das aber ist unsere nächste Aufgabe, deren Auflösung auch die Stellung der Wahrheitsidee in diesem Stufenverhältnis offenbar machen wird. Wir wollen mit dem wissenschaftlichen Denken beginnen als der untersten Stufe dieses Verhältnisses, als dem uns selber Nächstliegenden, weil unmittelbar in uns selber Liegenden. Denn wir sind es doch selber, die da denken, und die insbesondere wissenschaftlich denken, sodass es ohne unser Denken keine wirkliche Wissenschaft geben könnte. Wir knüpfen also gleichsam an die unmittelbarste Wirklichkeit selber an: Das wissenschaftliche Denken als solches ist wirklich, ist eine Tatsache. Allein es ist doch nicht bloss wirklich und tatsächlich, wie ein Kieselstein oder ein Stück Eisen es ist. Vielmehr hat es auch einen Sinn, weil es eine Aufgabe hat. Es will erkennen. Zu erkennen, das also ist Sinn und Aufgabe des wissenschaftlichen Denkens. Es braucht also noch nicht zu erkennen, es braucht noch nicht Erkenntnis zu sein. Denn es kann auch irren. Aber dass es erkennen will, dass es diesen Sinn, diese Aufgabe hat, das charakterisiert es, wenn auch zunächst nur allgemein.

Alles Erkennen aber ist Erkennen der Wahrheit. Es ist danach also Sinn und Aufgabe des wissenschaftlichen Denkens, die Wahrheit zu erkennen. Von Erkennen zu sprechen, ohne die Wahrheit vorauszusetzen, von Wissenschaft zu reden, ohne stillschweigend immer schon die Voraussetzung, dass es Wahrheit gibt, zu machen wäre vollkommen sinnlos, so sinnlos, wie es wäre, die Wahrheit zu leugnen, weil man ohne Wahrheit weder vom Sinn irgend einer Behauptung noch vom Sinn irgend einer Leugnung sprechen könnte.

Darum konnten wir gleich im Anfang sagen, dass die Frage nach der Beziehung zwischen dem wissenschaftlichen Denken und dem Ideal der Erkenntnis nur auf der Basis der Entscheidung der Frage nach der Beziehung zwischen Wissenschaft und Wahrheit getroffen werden könnte. Nun scheint sich aber daraus, dass alles Erkennen Erkennen der Wahrheit ist, und dass das Erkennen Sinn und Aufgabe des wissenschaftlichen Denkens ist, doch gerade das zu ergeben, was wir ausdrücklich abgelehnt hatten, dass die Wahrheit selbst das Ideal des wissenschaftlichen Denkens ist. Allein hier sind nun besonders sorgfältige Unterscheidungen auch ganz besonders notwendig. Schon daraus, dass die Wahrheit für *alles* Erkennen Grundlage und Voraussetzung ist, muss sich nämlich ergeben, dass die Wahrheit nicht das Ideal für das wissenschaftliche Denken ist. Eher liesse sich schon sagen, dass das Erkennen der Wahrheit Ideal für das wissenschaftliche Denken ist. Aber auch das wäre nicht genau; und zwar aus zwei Gründen. Erstens insofern auch das Erkennen Tatsache sein kann, kann es nicht Ideal sein; und zweitens insofern es doch auch im *vorwissenschaftlichen und ausserwissenschaftlichen* Denken Erkennen gibt, liesse sich nicht sagen, dass das Erkennen gerade Ideal des *wissenschaftlichen* Denkens sein müsste.

Wir müssten also wenigstens zwei Bedeutungen von Erkennen unterscheiden—genauer liesse sich noch eine dritte Bedeutung unterscheiden, auf die wir aber in diesem Zusammenhang nicht einzugehen brauchen—nämlich einmal das Erkennen als Tatsache im Prozess des Denkens und zweitens als Ziel für das Denken. Und allein im Sinne des Zieles wäre es Ideal. Weil nun alles Erkennen Erkennen der Wahrheit ist, könnte man sagen: Das Ideal wäre das Ziel, die Wahrheit im Erkennen durch das Denken darzustellen. Diese Darstellung der Wahrheit wäre darum von der Wahrheit als Grundlage und Voraussetzung des Erkennens vom Ideal als eben Ziel ihrer Darstellung unterschieden. Wir gerieten auch hier weder in einen 'Circulus vitiosus' noch in einen Widerspruch, dem man fraglos verfiele, wollte man die Wahrheit sowohl als Grundlage und Voraussetzung wie als Ideal des Erkennens fassen. Denn die Wahrheit als solche ist gewiss Grundlage und Voraussetzung des Erkennens, aber nicht sie als solche, sondern ihre Darstellung als Ziel ist sein Ideal. Wir können darum das Ideal der Erkenntnis verstehen als Projektion der Idee der Wahrheit auf das Denken. Damit wird auch schon deutlich, dass diese Projektion nicht bloss Entwurf und als solcher Produkt oder Erzeugnis des wissenschaftlichen Denkens ist. Wenn sie als Projektion auch auf das Subjekt bezogen ist, so ist sie doch nicht bloss subjektiv. Denn weil in ihr ein Wahrheitsgehalt projiziert wird, ist sie zugleich objektiv. Darum kann sie auch, wie die Wahrheit, Bedingung und Voraussetzung des wissenschaftlichen Denkens sein, zum Unterschiede von der Wahrheit aber auch dessen Ziel sein.

Allein wir hätten damit zwar die Beziehung von Erkenntnisideal und Denken gewonnen; das aber nur ganz allgemein, noch nicht im spezifisch wissenschaftlichen Sinne, wie wir vorher schon im Erkennen wollen gewiss das wissenschaftliche Denken charakterisiert fanden, aber das zunächst eben auch nur allgemein, nicht im spezifisch wissenschaftlichen Sinne. Damit wäre auch die Projektion der Wahrheit auf das wissenschaftliche Denken noch nicht ausreichend charakterisiert. Denn erkennen und wissen will auch das vor- und ausserwissenschaftliche Denken. Aber nicht alles Erkennen und Wissen ist, wie bereits Platon und Aristoteles betonten, schon Wissenschaft. Den spezifischen Charakter der Wissenschaft erkannten beide richtig darin, dass Wissenschaft begründetes Wissen und Erkennen ist. Dem entsprechend ist wissenschaftliches Denken begründendes, Gründe suchendes und Gründe aufdeckendes Denken. Es hat darum zum Ideale die

Begründung der Erkenntnis der Wahrheit. Die Begründung ist die Projektion der Wahrheit auf das wissenschaftliche Denken. Und der Projektionscharakter des wissenschaftlichen Erkenntnisideals als Voraussetzung und Ziel des wissenschaftlichen Denkens wird in der Begründung offenbar. Denn einerseits ist das Denken ohne Begründung nicht wissenschaftliches Denken; die Begründung ist darum dessen Bedingung; andererseits ist sie darum dessen Aufgabe und Ziel, weil es nur durch Hinstreben zu diesen Ziele die Voraussetzung und Bedingung erfüllen kann, unter der es gerade wissenschaftliches Denken ist. Dass die Begründung als Ideal oder Projektion der Wahrheit auf das wissenschaftliche Denken dessen Voraussetzung und Ziel zugleich ist, macht sofort offenbar, dass es sich hier nicht um ein bloss zeitliches Verhältnis handelt. Denn im zeitlichen Sinne kann etwas nicht Voraussetzung und Ziel zugleich sein. In dieser Projektion liegt also eine überzeitliche Beziehung, in der sich der überzeitliche Charakter der Wahrheit ankündigt.

Die Wahrheit ist ganz allgemein Grundlage und Voraussetzung alles Erkennens. Durch das Moment der Begründung erweist sich die Wissenschaft als durch Begründungszusammenhang charakterisiertes Erkennen. Da dieses niemals zu einem endlichen Abschluss gelangen kann, enthüllt sich die Idee der Wahrheit selber als Zusammenhang objektiv logischer Grundlagebeziehungen, wie bei Platon der logos schlechthin sich als System der logoi erweist. Dieser Zusammenhang der Grundlagebeziehungen in der Idee der Wahrheit ist es, der dem Ideal der Begründung selber seinen von der Subjektivität des wissenschaftlichen Denkens unabhängigen, objektiven Wahrheitsgehalt gründet. Insofern das Ideal der Begründung sich damit als Projektion des unendlichen Zusammenhanges logischer Grundlagebeziehungen auf das endliche subjektive wissenschaftliche Denken erweist, ermöglicht es diesem, sich von seiner Subjektivität zur Objektivität, von seiner Endlichkeit zur Unendlichkeit zu erweitern. Dieses Projektionsverhältnis vom Unendlichen aufs Endliche und vom Endlichen aufs Unendliche kann ich hier nicht ausführlich behandeln. Das habe ich bereits in anderem Zusammenhange getan.[1] Aber auf jene Momente, die wir schon als Stufen oder Schichten in der Beziehung von wissenschaftlichem Denken und seinem Erkenntnisideal angedeutet haben, soll hier noch etwas eingegangen werden.

Wir hatten schon gesagt, und das wird jetzt ganz deutlich, das

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[1] Vergl. dazu meine Schrift: *Die Idee*, bes. S. 222 ff.

Erkenntnisideal sei nicht blosser Entwurf des wissenschaftlichen Denkens; was dieses entwerfe, sei ein Plan zur Darstellung des Ideals und auch dieser Plan könne nicht Sache blosser Subjektivität, sondern müsse nach Massgabe gewisser Richtlinien entworfen sein, die dem wissenschaftlichen Denken und seiner Arbeit die Erkenntnis als Ertrag sichere. Was bedeuten diese Momente von der inzwischen erreichten Position aus? Das lässt sich jetzt kurz folgendermassen bezeichnen: Insofern das Ideal Ziel des wissenschaftlichen Denkens ist, bedarf dieses eines Weges, der es zum Ziele führt. Das ist die Methode, genau entsprechend der ursprünglichen griechischen Wortbedeutung von *μέθοδος* als Weg zum *τέλος*, zum Ziele der Erkenntnis. Ist das Ideal als Ziel der Begründung der Erkenntnis Projektion der Idee der Wahrheit auf das wissenschaftliche Denken, so ist die Methode als Weg zum Ziele der Begründung das Medium der Projektion dieses Zieles der Begründung auf das wissenschaftliche Denken. Daraus begreift es sich, dass wir ebenso, wie wir mit Platon und Aristoteles sagen können, die Wissenschaft sei begründetes Wissen und Erkennen, auch sagen können, die Wissenschaft sei methodisches Wissen und Erkennen. Die Methode ist also der Weg, nach dem sich das wissenschaftliche Denken zu richten hat, um zu seinem Ziele gelangen und einen wissenschaftlich begründeten Erkenntnisertrag gewinnen zu können. Wenn wir also die Wissenschaftlichkeit des Denkens gerade als durch das Methodische bestimmt, im Methodischen einen spezifischen Grundzug des Charakters des wissenschaftlichen Denkens zu sehen gewöhnt sind, so rechtfertigt sich damit diese Ansicht und erhält selbst ihre Begründung. Die Wahrheit als System von Grundlagenbeziehungen erstreckt sich in das Ideal als ihre Projektion und durch diese hindurch in die Methode, deren Struktur dadurch selbst ihre objektive Bedeutung erhält.

Daraus folgt, dass die Methode als Richtweg zum Ziele der Erkenntnis auch nicht der blosse Entwurf des wissenschaftlichen Denkens ist, von dem wir gesprochen haben, und der in der Beziehung zum Erkenntnisideal gewiss selber eine notwendige Stufe ist. Aber diese Stufe ist von der Stufe der Methode selbst zu unterscheiden. Die Methode ist als Richtweg zum Erkenntnisziele vielmehr das, was für das wissenschaftliche Denken die Richtlinien für seinen Entwurf, für seinen Plan, das Ideal zu erfüllen, darstellt. Dieser Plan aber ist der Plan des wissenschaftlichen Verfahrens. Danach hängen also zwar Methode und Plan des wissenschaftlichen Verfahrens aufs engste zusammen, die Methode erstreckt sich ihrerseits zwar wieder in jenen Plan, beide sind aber doch auch von einander sorgfältig zu unterscheiden. Ist das Ideal die *Projektion* der Idee der Wahrheit auf das wissenschaftliche Denken, die Methode das *Medium der Projektion*, so ist der Plan des Verfahrens nach der Methode gerichtet, genauer das nach der Methode gerichtete *Projekt*, um dem wissenschaftlichen Denken in der wissenschaftlichen Erkenntnis einen Ertrag zu sichern.

Von dem uns im Wirklichen am nächsten Liegenden, dem wirklichen wissenschaftlichen Denken ausgehend, fortschreitend über die wirkliche wissenschaftliche Erkenntnis, weiter über den Plan des Verfahrens als Projekt des wissenschaftlichen Denkens, gelangen wir zu der dieses Projekt leitenden Methode als dem Medium der Projektion des Ideals, von ihr zum Ideale selbst, als dem Ziele wissenschaftlicher methodisch begründeter Erkenntnis, um endlich auf die Idee der Wahrheit selbst zu treffen, die als System der Grundlagebeziehungen selber das Ganze der Beziehungen von wissenschaftlichen Denken bis zum wissenschaftlichen Erkenntnisideal trägt. Ist die Wissenschaft im Endlichen ein abschliessbarer Begründungszusammenhang, so hat ihn das wissenschaftliche Denken in stetigem Fortgang von Problem zu Problem zu erarbeiten, indem es nach einem Plane verfährt, der nach der Methode als Weg zum Ziele der Begründung bestimmt und darum auf das wissenschaftliche Erkenntnisideal als dieses Ziel bezogen ist, das selber in der Idee der Wahrheit als unendlichem System der Grundlagebeziehungen fundiert ist.

Die Beziehung des wissenschaftlichen Denkens zu seinem Erkenntnisideal ist in seinem letzten und tiefsten Grunde also von der Idee der Wahrheit bestimmt. Wissenschaftliches Denken und Wahrheit bilden nach allem, was wir darüber ermittelt haben, die Pole einer Klimax von Schichten derart, dass sich jede Schicht von den Polen angefangen in die übrigen als Zwischenschichten hineinerstreckt und hindurchzieht. Es liesse sich dabei, könnten wir das Verhältnis hier weiter ausführen, als es leider in dem knappen Rahmen dieses kurzen Vortrages unmöglich ist, zeigen, dass von der Stufe des wissenschaftlichen Denkens im Sinne des wirklichen Denkens wirklicher Wissenschaft treibender Subjekte bis zur Stufe der Idee der Wahrheit der Charakter des Wirklichen immer mehr zurück- und der Charakter des Idealen-Objektiven immer mehr hervortritt, bis dieser in der Idee der Wahrheit in seiner ganzen Fülle sich darstellt, während er im wissenschaftlichen Denken sich gerade in dem Momente der Wissenschaftlichkeit sich besonders ankündigt. Von der Idee aus nach dem Pole des wissenschaftlichen Denkens hin gesehen, bietet darum das ganze Schichtenverhältnis in Bezug auf Ideales und Wirkliches gerade den entsprechend umgekehrten Aspekt.

Das aber kann nun nicht etwa eine bald mehr, bald minder grosse Ablösung von Idee und Wirklichkeit bedeuten. Vielmehr ergibt sich daraus mit aller Deutlichkeit, dass Wahrheit und Wirklichkeit, die man im gewöhnlichen Leben kaum oder gar nicht unterscheidet, zwar genau von einander unterschieden werden müssen, dass aber diese Unterscheidung keine Trennung bedeuten kann, dass im Gegenteil beide in unablösbarem Verhältnis und Zusammenhang mit einander stehen. Die Wahrheit als Zusammenhang objektiver Grundlage- und Geltungsbeziehungen ist darum keine blosse Abstraktion, sondern gerade die überzeitliche funktionale Macht der Idee, Wirkliches zu konstituieren.

Noch schärfer und klarer einsehbar wird das von dem Momente der Erkenntnis aus, das wir als den Ertrag des wissenschaftlichen Denkens charakterisiert hatten. Denn ebenso, wie sich alle Erkenntis als Erkenntnis der Wahrheit bestimmt, bestimmt sie sich auch als Erkenntnis von Gegenständen. Und das gilt ebenso von der ausser- oder vorwissenschaftlichen Erkenntnis des täglichen Lebens, wie von der Erkenntnis der Wissenschaft. Weil das aber auch von den wirklichen Gegenständen, etwa denen der Physik, der Geschichte, des täglichen Lebens nicht weniger gilt, als von den unwirklichen Gegenständen, etwa denen der Mathematik, so folgt abermals, dass die Idee der Wahrheit als System der Grundlagebeziehungen keine blosse Abstraktion sein kann, dass sie auch von den wirklichen Gegenständen ebensowenig ablösbar ist, wie von den unwirklichen. Die Beziehung von Wahrheit und Wirklichkeit kännten wir kurz als Existenz, d.h. wörtlich als das Sich- Aus- Sich- Heraus- Stellen und ebendarum Sich-Darstellen der Idee zur Wirklichkeit bezeichnen. Dieses Problem kann ich in der Kürze dieser Erörterungen auch nicht einmal andeutungsweise weiter verfolgen. Auch das habe ich in anderem Zusammenhange schon getan.[1] Nur soviel mag zum Schluss noch bemerkt werden, dass diesem Problem weder der alte noch der neue Existenzdogmatismus, der sich jetzt als 'existentielles Denken' bezeichnet, gerecht werden kann, noch der Kantische Kritizismus, insofern auch er einerseits im Existenzdogmatismus verharrt, andererseits unter teilweiser Verwechslung zwischen Idee und Ideal auch in einem zwar interessanten, aber unausgeglichenen

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[1] Vergl. dazu ausser der schon genannten Schrift über *Die Idee* auch mein Buch über, *Wahrheit, Wert, und Wirklichkeit.*

Schwanken zwischen der konstitutiven und regulativen Bedeutung der Idee verbleibt. Je sorgfältiger und je hingebender aber das wissenschaftliche Denken auf sein Erkenntnisideal und durch dieses auf seine eigenen Grundlagen sich bezieht, um so tiefer wird sich ihm auch in der Wirklichkeit die Einsicht in die konstitutive Macht der Idee öffnen.

ON OUR IMMEDIATE KNOWLEDGE OF THE REALNESS OF REALITY[1]

H. G. STOKER

I. REALITY as *existing* and perception as a concrete (psychical and psycho-physical) activity are primarily dynamic; in the perception of existing reality a unique dynamic encounter is involved, of which we know in the experience of resistance. This experience is not revealed in an analysis of the 'anschauliche' content of perception; no element[2] of the so-called 'sensum' and no combination of any or of all of these elements demonstrates this experience—notwithstanding that this experience is never given otherwise than along with some perceptional content or other. Reality as existing opposes the dynamic factor of perception, and the experience of resistance is given on the functional, the act-side, of perception.[3] Reality as resisting is necessarily exterior to the act of perceiving, and is as such not given in the immanent content of perception. However high a correlation may seem to be given, for instance, between the degree of resistance experienced and the degree of intensity of the sensum and again between the duration of the resistance experienced and the duration of the sensum, the correlations are partial and do not allow an identification of the experience of resistance with either the permanence or the intensity of the sensum.[3] We must also distinguish between the 'sensing'[4] of the 'sensum' and the experience of resistance. The immediate source of our knowledge of reality as existing is the 'unanschauliche' experience of reality's dynamic opposition (the dynamic 'not-giving-way') to the dynamic activity present in perceiving. In a more complex way this experience of reality's resistance to our acts of perceiving is corroborated and intensified by the immediate experience of reality's (positive and negative) resistance to our conations,[5] desires, and doings.

[1] The phenomena of illusion and hallucination, possible in any sphere of immediate knowledge, have been disregarded. They seem, in the opinion of the author, not to refute the given analysis.

[2] Modality, quality, intensity, duration feeling-tone, &c.

[3] When, e. g. perceiving a colour with full attention, we know of its realness as *existing*; when gazing at the same colour with our attention directed to something else, we do not perceive the colour as really *existing*—notwithstanding that the quality, intensity, &c., of the colour may have remained unchanged. This example also indicates the difference between the intensity (or the duration) of a sensum and its reality as *existing*.

[4] The grasping of the content of the perception.

[5] Cf. Max Scheler, *Die Wissensformen und die Gesellschaft* (1926), pp. 354, &c.

The experience of resistance differs in the cases of the different senses. In the case of visual perception this experience seems to be more delicate and more subtle than in the case of the perceptions of touch and pressure,—i. e. we seem to be relatively more certain that reality exists in the case of pressure and touch than in the case of vision. Intermediate between sight and touch seem to stand in this connexion the auditory perceptions. This, however, does not indicate that reality has degrees of realness; on the contrary only our certainty of reality's realness has degrees.

Not only 'material' reality resists us—so do the (biotically and spiritually) psychical realities. This latter form of resistance—as immediate as the first—is of a new, 'higher' and unique type, irreducible to the type of resistance already discussed (although generally given along with the latter). This new type of resistance is exemplified in the experience of the (positive and negative) resistance as is given, for instance, in the clash of one's emotions, desires, sentiments, will, &c., with those of another.

As far as the lower biotic order (e. g. plants) is concerned the experience of the immediate resistance of this order of reality does not seem to be of a different type from the experience of 'material' resistance.

As far as religious experience is concerned we meet here an experience of the resistance of the will of God to our will, inclinations, &c. It is problematic whether this experience of resistance can demonstrate to us objectively the existence of God. In all the former cases of resistance the existing objects were perceptible, self-given—in the latter it is not the case. The faith or the religious belief in God seems to be the necessary condition of this experience of His (positive or negative) resistance, i. e. of His existence. This is obviously quite a different problem.

II. Reality as *subsisting*, i. e. in its 'anschauliche' 'So-sein'—determination, is non-dynamic, and likewise the 'grasping' of the 'anschauliche' objects of reality in our perceptions and intuitions. Reality as existing cannot be 'grasped', but only resisted; it is exterior to and transcends our perceiving. Reality as subsisting is (to us) 'revelation', is self-evident (given 'in its own light'); [1] it enters our perceptions and intuitions as their objectively given content.[2]

There are degrees of revelation, dependent as well upon the object as upon the subject. The distinctively revealed, the uncovered (the ἀ-ληθής), the superficial, the actual and the evolved are more easily grasped than the less revealed, the more 'hidden', the more 'deep-set', the potential and the involved or the undeveloped respectively. Subjective prejudices and constructions as well as undevelopedness or defects of our senses, intuitions, and functions of apprehending may more or less conceal the revealed from us.

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[1] It must be grasped as it reveals itself. Cf. Husserl's *Prinzip der Prinzipien.*

[2] Without being mentalized in this process of the mind.

Subsisting reality is not homogeneous; it comprises, e. g. the quantitatively and qualitatively differentiated, spatial and temporal relations, colours and sounds, pains and pleasures, principles and essences, values and ends, &c. —it comprises all the original sources of 'anschauliche' knowledge (sensual and non-sensual, or super-sensual), all the original spheres of revealed reality, each grasped by means of an original function of knowledge adapted to it.

In grasping objects of subsisting reality as they are given, 'apprehension' is required along with perceiving and intuiting. In a biotic relation the perceived is not grasped in itself (e. g. a colour as a colour), but as a token for a more or less specific and biotically necessary response or adaptation. As long as perception remains on this biotic level, knowledge of the content of self-evident reality as such is impossible. Only when perception is released from its biotically and organically determined 'Umwelt', and is directed towards an objectively given reality, revelation and knowledge of subsisting reality are possible. This release is given in the apprehension, by means of which the biological stimulus loses its biological function and is grasped in its objective self-evidence, as that which it is in itself.[1]

We know of the realness of subsisting reality in the experience of its 'self-givenness', in the experience of the objective necessity to grasp it, as it is given 'in its own light', in its self-evidence; this experience is corroborated by the experienced impossibility to change arbitrarily the perceived or intuited.

Although a high correlation seems to be given between the degree of clearness of the perceived or the intuited, and the degree of our certainty of its realness, this correlation too is only partial. Clearness is no final criterion of the realness of subsisting reality.[2]

III. Reality resists and reveals, but also claims. Reality as *insisting* claims our interest and concern—it obliges us for its own sake as well as for ours—and unmovingly induces us to some attitude or action, i. e. to participate in the whirl of realization and irrealization of values. This inducement is on the side of reality non-dynamical—more of the nature of *κινεῖ ὡς ἐρώμενον.* Reality is objectively permeated with (positive and negative) values and we find ourselves every moment enjoined to choose, to take sides. It is by means of an emotional-cognitive function of valuing or of esteeming that we know of the values.[1] In so far as this emotional intuition reveals to us values simply as knowable content, they form a part of reality as subsisting—but in so far as they appeal to our participation in reality's whirl, they partake of a new, the obliging, quality, which the rest of subsisting reality as such misses. In this sense insisting reality occupies an intermediate position between existing and subsisting reality.

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[1] On account of the dominance of the principle of Spirit (Geist) over that of life.

[2] Even the unclear can be grasped as undoubtedly self-given, and as such self-evident.

Values [1] are quantitatively and qualitatively differentiated and can be arranged in a scale from the lower to the higher. Each new group of values binds us in a different way from the other groups, as is seen when the claims of religious, ethical, logical, aesthetical, biotic and sensual values, &c., are compared with each other. Neither the experienced height of a value, nor the experienced attractiveness (or agreeability) of a value, nor its experienced intensity may be taken as a criterion of its realness, however high a correlation may seem to be given between any one of these and our knowledge of its realness.

We know of the realness of insisting reality in the experience of being (positively or negatively) bound to it, in being seized by it—in being obliged. Values oblige. Not only does the categorical imperative demand reverence, but every real and positive value as such does so. It is by experiencing the necessity of recognizing the claims of a value, of admitting its intrinsic worthiness, that we know of its objective realness. This experience of the obliging character of a value increases with the height, which the value occupies in the scale of values. The intensity with which we feel ourselves submitted to the claims of the values, however, seems to decrease with the height of scale-position.

It must, however, be admitted that our knowledge of values is to a very high degree subject to falsification and deficiencies, especially on account of the influence of prejudices, subjective inclinations, &c.,—more so than the other sources of knowledge.

IV. We know of the realness of existing reality in the experience of its dynamic resistance. We know of the realness of subsisting reality in the experience of its objective self-evidence. We know of the realness of insisting reality in the experience of its objective obligatoriness.

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[1] Cf. analyses given by M. Scheler, N. Hartmann, and others.

Each of these aspects of reality is an abstraction, and each of these experiences is a partial experience. Reality *consisting* of a kingdom of concrete, organized, interconnected and interrelated finite wholes, commonly named substances, comprises in each whole and in each cohering group of wholes undividedly and holistically all three aspects in unity. We, a special kind of these wholes—favoured with the gift of knowledge—meet the other wholes with our undivided and holistically organized conscious functions and meet the three aspects of reality at the same time in one comprehensive act. This act of meeting reality as reality involves a unique tension. We grasp reality in its subsisting aspect; reality seizes us in its insisting aspect; and at the same time we and the reality we meet as existing are constantly kept separated on account of the dynamic encounter experienced as resistance. This experienced tension of grasping and of being seized and yet being kept separated is the undivided source of our knowledge of reality's realness. In all three partial experiences reality is given as being independent of our mental acts and as being other-than-mind—in each partial experience this is given in a new and unique aspect—but it is in the tensive but undivided unity of these partial experiences (although one or other may predominate) that we naïvely and concretely accept reality as being objectively real, and independent of us. This tension accentuates at the same time the I and the not-I. The diminishing of this tension involves a diminishing of experiencing reality as really real, as is given, for instance, in some mystical experiences, in some forms of sympathy [1] (*Ansteckung*, *Verschmelzung*, *Identifikation*), in the experience of our becoming thoroughly absorbed in the object of our attention, in hypnotic experiences, and so forth.

This immediate knowledge of reality's realness is corroborated by reconstructive and constructive thought, by scientific experimenting, and so forth. Reality behaves in its own way and discloses its more permanent character in its incessant change. We may not, however, ascribe to reality as reconstructed in thought (electrons, atoms, genes, monads, concepts of energy, ideas, &c.) that same certainty of realness as reality discloses to us in our immediate experiences.

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[1] Cf. Scheler's *Analysis of Sympathy*.

L'ÂGE DE LA MÉTAPHYSIQUE

M. DE WULF
(*Louvain*)

I. Le xiiie Siècle

Le xiiie siècle, qui fut témoin du splendide essor de la philosophie médiévale, est par excellence un âge de métaphysique. Non seulement en ce sens que les problèmes de métaphysique sont les grands favoris de la controverse, mais encore parce que toutes les autres questions philosophiques — et un siècle d'apogée n'en néglige aucun — sont placées dans leur éclairage et teintées à leur couleur. La métaphysique est la grande passion philosophique de l'époque. Tous les penseurs du siècle cèdent à son attirance. Tous s'appliquent à présenter des vues d'ensemble, des tableaux synthétiques 'de ce qu'implique l'être comme tel, existant ou possible, des attributs profonds de l'être'; et c'est là ce qu'ils entendent par métaphysique.

Chez tous aussi, cette métaphysique présente une orientation nette et de grands traits uniformes: car elle implique une série de caractères, ou si on veut de doctrines très générales, qui se nuancent, se développent, se compliquent de cent manières suivant le tempérament de chaque penseur. Doctrines non pas postulées, mais passées au crible, justifiées, si bien que leur ensemble apparaît comme une explication réclamée par le principe de Raison suffisante, une interprétation rationnelle du réel, tel que l'expérience interne et externe le présente à notre enquête.

Quelles sont ces maîtresses doctrines qui forment l'ossature de la métaphysique, et qui commandent toute étude sur la mentalité philosophique du xiiie siècle?

Avant tout, la métaphysique est *objectiviste*, exclusivement objectiviste. L'être, objet de la recherche métaphysique, n'est pas un pur produit conceptuel, mais un réel qui est indépendant de la pensée humaine; celle-ci lui est soumise et le subit.

De plus la métaphysique du xiiie siècle est *individualiste et pluraliste*. L'être n'existe et ne peut exister qu'à l'état d'individualité. Ce qui signifie qu'il est complet en lui-même (indivisum in se), incommunicable dans ce qui le constitue, et dès lors distinct de tout autre. Car l'être individuel est non unique, mais plusieurs (pluralisme). Corporels ou supra-corporels, les êtres accusent leur diversité. Rien ne répugne autant à la métaphysique du xiiie siècle que le monisme, pour qui la diversité n'est qu'apparence et qui fusionne le réel par la compénétration de tous ou de plusieurs en un.

Une fois orientée dans le sens de l'objectivisme et du pluralisme, la tâche de la métaphysique s'éclaircit: il s'agit d'étudier tout ce qu'on découvre de réalité dans *un* de ces êtres individuels, ou mieux dans *tout* être individuel; et pour cela il convient de répondre à un double ordre de questions: Comment un être individuel est-il constitué de l'intérieur? — comment se range-t-il avec tous les autres dans une vaste hiérarchie? Ces deux questions se posent dans la métaphysique (objectiviste et pluraliste) d'un Platon ou d'un Aristote ou d'un Leibniz, comme elles se posent dans la métaphysique des Scolastiques. Au XIII^e^ siècle, elles alimentent les deux tiers des discussions d'école.

D'abord l'organisation intérieure de l'être individuel. On l'explique par des compositions célèbres: essence et existence, substance et accidents, forme et matière. Nous ne pourrions, sans dépasser les limites de cette note, entrer ici dans l'étude de ces diverses compositions internes, ni montrer de quelle diversité d'interprétation ces doctrines sont susceptibles, dès qu'on s'essaie à les préciser. Il suffira de dire que toutes trois sont une façon de justifier le changement, ou le devenir, dans lequel tout être limité est jeté, et qu'elles sont fonction de la doctrine aristotélicienne de l'acte et de la puissance qui les domine toutes.[1] En tenant compte de cette directive, ou réussit à dissiper la plupart des obscurités qu'on s'est plu à accumuler autour des controverses scolastiques sur ces compositions délicates.

Le deuxième ordre de problèmes vise à dresser la hiérarchie des êtres individuels, car ils ont coexisté, coexistent, coexisteront indéfiniment nombreux. Bien plus, leur nombre déborde le royaume des existences, puisqu'il est des êtres possibles par myriades de myriades.

Comment ces multitudes sont elles échelonnées depuis les plus infimes jusqu'à l'Être Infini? Y a-t-il des déterminations communes à tous, et qui, dès lors, d'une même frappe marquent l'être comme tel?

Ces nouveaux problèmes sont plus synthétiques que les premiers. Ils ramassent en une vaste conception d'ensemble tout l'empire de la réalité; ils obligent le métaphysicien à dévoiler l'intime de sa pensée sur ce qu'il regarde comme le fonds des choses; ils ont exercé une irrésistible séduction sur les philosophes du XIIIe siècle.

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[1] Nous sommes obligés pour l'établissement de cette thèse de renvoyer à notre *Histoire de la Philosophie médiévale*, t.i, Louvain (1924), p. 260, et *History of Medieval Philosophy*, (Longmans, 1920, t. i, pp. 275–83).

Une comparaison de la philosophie de Thomas d'Aquin et de celle de Duns Scot, qui sont les 'representative men' de deux mentalités métaphysiques dominantes, conduit rapidement à cette conclusion que le point de rupture où ils se séparent est une de ces théories synthétiques qui commande et domine toutes les autres: la théorie de l'être. Univoque pour Duns Scot, l'être est analogique pour Thomas d'Aquin. Cela veut donc dire brièvement que pour Thomas d'Aquin l'être est *divers* dans les entrailles les plus profondes du réel: en Dieu l'être nécessaire, et dans la créature être contingent; dans l'être corporel et dans l'être supra-corporel; dans la substance et les accidents, l'être n'est pas le même.

Tandis que pour Duns Scot une formalité semblable qui affecterait *tout* être, se concilie avec les modes concrets qui différencient *les* êtres. Sans doute pour Thomas comme pour Scot Dieu doit être démontré; mais la recherche de Dieu par l'esprit humain mène aisément à sa découverte, Dieu étant une nécessité métaphysique, sans qui le limité tel qu'il tombe sous nos expériences serait inexplicable. Aussi les preuves de l'existence de Dieu prennent moins de place que l'étude de l'infinitude qui place Dieu au faîte du monde métaphysique, et qui permet de hiérarchiser en fonction de l'Être suprême, tout ce qui est ou peut être hors de lui.

Non seulement ces questions de métaphysique que nous venons d'esquisser (être univoque ou analogique; être fini et infini; essence et existence; substance et accidents; matière et forme; acte et puissance) sont prédominantes, mais leur solution commande la psychologie, la morale individuelle et sociale, la politique.

C'est ainsi que le problème de la connaissance avec tout l'appareil des facultés et des species impressae et expressae s'inspire des relations que la métaphysique établit entre une substance et ses pouvoirs d'opération; sa solution est commandée par le principe métaphysique: Quidquid movetur ab alio movetur. Si la thèse de la connaissance intuitive de l'être individuel, déjà familière à des prédécesseurs de Thomas d'Aquin, occupe tant de place dans la philosophie de Duns Scot et plus tard dans celle de Guillaume d'Occam, c'est qu'elle est une façon de mieux expliquer l'étreinte du réel lequel est constitué d'êtres individuels, et dès lors de servir la thèse du pluralisme métaphysique. De même les doctrines capitales sur l'âme et sa spiritualité sont de la pure métaphysique.

Ou encore, tout ce qui touche à la fin de l'homme et à son bonheur est une mise en œuvre de la doctrine métaphysique que chaque substance porte en elle une tendance vers un but.

De même tout ce que le XIII^e siècle écrit sur l'organisation de la vie sociale (famille, corporation, état) est basé sur la doctrine métaphysique que la personne humaine est la seule réalité sociale, et que les divers *groupements* humains sont des moyens destinés à faciliter l'essor de *l'individu*, l'épanouissement de sa personnalité.

Ainsi un petit nombre de grandes questions métaphysiques donnent le ton à toute la philosophie.

On en peut trouver une autre preuve dans les pamphlets où s'affrontent les systemes de pensée du XIII^e siècle et où se reflète sur le vif l'esprit de l'époque: notamment dans le *Correctorium* de Guillaume de la Mare, où un franciscain d'Oxford, sous couleur de corriger saint Thomas d'Aquin, a rédigé le code officiel des doctrines 'augustiniennes' qu'on voulait à tout prix maintenir à l'encontre des innovations du grand maître dominicain.[1] Si des 118 articles incriminés on soustrait ceux qui visent la théologie et qui ne sont pas en cause, ce sont des théories *métaphysiques* qui remplissent le réquisitoire du franciscain d'Oxford. La question de l'unité ou de la pluralité des formes revient à plusieurs reprises. Un tout petit nombre d'articles ont trait à la connaissance, et même là le point de vue métaphysique n'est pas absent : C'est donc bien sur des *questions de métaphysique pure* que s'est produit la rupture entre l'augustinisme et le thomisme: et non sur l'innatisme ou le non-innatisme des idées, ainsi qu'on l'écrit récemment. La métaphysique — et non la psychologie — est le souffle inspirateur de la philosophie du XIII^e siècle.

II

Le XIV^e siècle mit-il fin à l'âge de la métaphysique? Non, en philosophie il vit tout entier de l'esprit du passé. Sans doute de grandes nouveautés marquent son apport à l'évolution des idées: l'avènement du nominalisme terministe et l'ardente discussion de problèmes politiques sont des faits influents et significatifs, mais ils n'ont pas suffi à déplacer le pôle vers lequel la philosophie jusque là s'était tourné.

Par son nominalisme terministe, Guillaume d'Occam ne prétend pas ruiner la métaphysique, mais la simplifier et la révigorer. Il rejette des doctrines qui avaient paru nécessaires à Thomas d'Aquin, à Duns Scot et à cent autres, sous prétexte de renforcer la valeur de la substance individuelle, qui seule existe. Il conserve le pluralisme et l'objectivisme. A l'intérieur de la substance individuelle, la matière et la forme se retrouvent, et certains êtres — l'homme notamment — sont dotées de plusieurs formes. Ce n'est pas à la métaphysique que Guillaume d'Occam déclare la guerre, mais à ses abus. Quant à sa fameuse théorie que nos concepts abstraits et généraux n'ont et ne peuvent avoir aucun regard sur un monde de substances extérieures, où tout est à la frappe de l'individuel, il n'a pas poussé à fond l'agnosticisme qu'elle porte dans ses flancs.

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[1] Edité dans *Bibliothèque thomiste*, par P. Glorieux, 1927.

Par contre, il souligne la portée de la connaissance intuitive qui atteint le non-moi, et maintient le contact avec l'existant. Grâce à elle, l'expérience directe, sensible ou intellectuelle, s'adapte merveilleusement au réel, puisqu'elle est singulière comme le réel lui-même. D'autre part les théories de Marsile de Padoue, de Jean de Jandun, de Jean Quidort, sur l'organisation intérieure de l'État, sur le rôle de la collectivité dans la vie de l'Église, sur l'affranchissement de la tutelle papale ne sont que le développement logique de la grande doctrine médiévale que la personne humaine est la seule réalité, et par cette doctrine elles sont ancrées au roc vif de la métaphysique. Aucun écrivain politique du XIVe siècle ne songe à mettre en doute la mission morale de la souveraineté, ni le devoir des gouvernants de conduire le citoyen — seule réalité sociale — à sa fin, ce qui est une nouvelle manière d'affirmer en politique la domination de la finalité — théorie capitale de métaphysique.

III

Après le XIVe siècle, l'âge de la métaphysique décline rapidement. Cependant, il faudra deux siècles encore avant d'assister au plein épanouissement d'un âge nouveau. Un changement radical ne se produira que le jour où la psychologie primera tout le reste, où l'étude des phénomènes conscients pénètrera toute recherche, où le problème de l'origine et de la valeur de la connaissance se posera au seuil de la philosophie. A partir du XVIIe siècle la psychologie prend la place d'honneur que le moyen age réservait à la métaphysique. Là est l'origine des méthodes nouvelles, des nouveaux *Organum* dont le XVIIe siècle attendait le miracle d'un Renouveau.

SENSE QUALITY AND FEELING TONE

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THIS paper departs from tradition in respect to two widely believed doctrines:

(1) Sensations (here equivalent to 'sensory qualities', 'secondary qualities', 'sense data') are 'ineffable' (unanalysable, indescribable, indefinable, inexplicable).

(2) Sensations are to be entirely distinguished from affections or feeling tones; the latter are intuitions of good and evil, akin to joy and sorrow, pleasantness and unpleasantness, and perhaps to modes of liking and disliking, or even of love and hate; whereas the former, the sensations, are in themselves devoid of these characteristics, or at least are not essentially constituted by them.

The following is part of the evidence which may be offered for the position that sensations are definable and explicable as a *species of affects*, differing from the remaining species of the genus 'feeling' chiefly through the fact that they are, in Volkelt's phraseology, 'objective' rather than 'reactive' feelings, this objectivity meaning that they are intuited as outside the body and as separated by a certain 'psychic distance' (the term is Bullough's) from the self which is aware of them.

1. The view that sensations are *not* classifiable as affects implies that the difference between the sense of value (positive or negative) and awareness not of value is a mere difference between one mode or functioning of mind and another, or between one class of data or mental elements and another. But the difference between value and non-value must obviously be far more radical than that, namely the difference between life and death, between something and nothing in the functioning of consciousness. There may be success, there may be failure, in any function; but in either case there is value, positive or negative or both. As effort and tendency the function *is* search for value, as consummation or fulfilment, it *is* achievement of value; apart from, or additional to, or in any sort of distinction from, this value-intending, value-enjoying process there can, for the living creature, be nothing but the veritable 'night in which all cows are black'. The more thinkers reflect upon this, the more, I am persuaded, will they abandon the idea that perceiving or sensing can ever be anything but some sort of caring for or valuing of things, or that intuited qualities can ever be other than values or feeling tones.

2. The genus 'affects' must upon any hypothesis be broadened to include feelings intuited as without the body; since such objective feelings are experimentally demonstrated facts.[1] The supposition that all feelings of value are given as within the organism and as primarily values to oneself is based upon hasty observation (see almost any good writer on aesthetics). Objective feelings are real occurrences.

3. In any identical portion of experience there is room for but one quality of the same logical type. A visual surface may be both coloured and shaped, but this is because shape is a more abstract entity than colour, a mode of arrangement, in fact, of the colour itself. But no such distinction holds between a colour or a sound and the objective feelings referred to under 2. Thus, in hearing the whine of a dog, the listener intuits as *in* the whine a feeling tone of displeasure, and this feeling is a logical concrete in the same sense as the sensation. There cannot be room for two such logical concretes in the identical auditory region. Yet both sound and feeling do, as given, occupy the same portion of the auditory field. It follows that the distinction between them is one of words; or rather, it is the difference between denotative and connotative reference. 'Whine' is the name recalling a certain essence recurrent in experience; the nature of this essence is given not by this name, which merely recalls it, but by such a term as 'pained' or 'agonized', which logically locates the essence as a subspecies of negative affection. Thus wherever objective feelings are admitted—and in some cases at least they are facts—then to make a place for them the distinction between sensations and feelings as different genera must be abandoned. There is every ground for generalizing this. Sensory qualities are affects whose affective character has been inadequately detected; chiefly because of the erroneous assumption that feelings of value need refer primarily to oneself, one's likes or dislikes.

4. The usual proofs for the distinctness of sense quality and feeling tone rest upon the foregoing fallacious assumption, or upon careless observations of facts, or suffer from both weaknesses. A man may like or dislike black, he may or may not find it beautiful, but he cannot, in spite of assertions to the contrary, *see* in it the 'gaiety' which certainly may be seen in yellow; just as one may

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[1] Cf. Edw. Bullough, 'The perceptive problem in the aesthetic appreciation of single colours', *Brit. J. of Psych.*, ii (1908), pp. 433–48, 459 ff.; and C. Myers and C. W. Valentine, 'A study of individual differences in attitude toward tones', *Brit. J. of Psych.*, vii (1914), pp. 68 ff.

find yellow pleasant or unpleasant, offensive, or even melancholy, but under no circumstances can he see in it anything really approaching the sheer emotional gloom of black. Similarly, one may be pleased or displeased at the sight of a happy child, but in either case may *observe* the child's appearance to be that of happiness or pleasure. Supposed evidence for the independent variability of sensation and objective feeling tone is also often derived from an unnoticed ambiguity due to the implicitly *comparative* meaning of such an adjective as gay. Thus in comparison with pure yellow the slightest admixture of green or grey may produce the judgement 'not cheerful', just as an American negro of average height might be 'tall' to one accustomed to the pigmy negroes of Africa, 'not tall' to anyone else. Until the meaning of terms has been rendered more precise by the specification of the referents of such unconscious comparisons, or by the experimental control of these, the results of observation are ambiguous, as von Allesch has shown.[1] But, as the very same relativity is shown to occur in the naming or identifying of the colours 'simply as colours', there is here no evidence for the duality of sensation and feeling.

5. The widespread and well-attested aesthetic doctrine of the 'unity' of form (sensory qualities) and content (aesthetic feeling) seems quite meaningless unless it implies the essential homogeneity of the two factors.

6. Some advantages of the affective account of sensation are as follows:

(*a*) It reduces, as all science seeks to do, the number of 'irreducible' or inexplicable elements, and even tends to abolish the very idea of an absolute ultimate for explanation. If the 'gaiety' of yellow, the objectified gaiety, *is* its yellowness, then yellow is no longer altogether ineffable or opaque to reason. Gaiety is probably less specific than yellow, even if qualified as objective; nevertheless the fact that a definition is not fully precise is by no means equivalent to the current doctrine that absolutely nothing approaching a true definition is conceivable. Nor can the possibility of rendering the definition more precise be limited *a priori.* The basic role of sensation in our knowledge implies that this can be generalized, that all things can be rendered intelligible beyond assignable limits in terms of the Good, as Plato said, or as modalities of enjoyment.

(*b*) The correlation of sensation and stimulus becomes capable, for the first time, of conceivable explanation. For instance, the affective negativity of black can be connected with its admitted physical and physiological negativity, and one can even complete the connexion by supposing an affective negativity to characterize, in the moment of black vision, the retinal cells (or certain brain cells), conceiving these as living and sentient individuals. Still other forms of correlation, utilizing facts ordinarily construed as evidences for the merely associational connexion of sensations and affections—such as the relation of the excitingness of red to its importance as the colour of blood—can be exploited, with much greater explanatory power, by an affective theory of sensation.

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[1] G. J. von Allesch, *Die Aesthetische Erscheinungsweise der Farben*, Berlin, 1925, pp. 138ff.

(*c*) The old view of sensation is analogous logically, almost point for point, to the materialistic concept of matter recently eliminated from physics. The static bits of matter seem to have been volatilized into relatively stable and localized phases of the one dynamic process which is electricity or the ether or space-time. Psychological matter, i.e. bits of quality to which the life of the mind as a whole, with its predominantly emotional character, must be conceived as extraneous, can be similarly volatilized into the objective, or socially externalized, phases of the process of value-search and value-achievement which is life itself. The old heterogeneities and separations (particles from waves, light from electricity, irreducible species in biology) have been largely done away with in natural science. It is time that psychology and philosophy took seriously the only real clue ever imagined for a similar unification of the mental world, the unification through the concept of the Good as feeling.

(*d*) The old view is non-evolutionary. Evolutionary explanation (in spite of the more extravagant 'emergence' theories) consists in the attempt to conceive the more lately evolved functions as *specializations* of the more primitive. Sensations, such as visual or auditory, are late arrivals; pleasure and displeasure feeling, on the contrary, may well be as old as life. If the former can be understood as specialized modes of the latter, this is only what biology would lead us to expect.

(*e*) The social aspect of consciousness, admittedly all-important for its central functions, need no longer be so illogically excluded from relevance in the treatment of the peripheral functions. If, when yellow appears, it appears as a 'gay' feeling, and if this feeling is given not as though it were one's own but rather that of some being 'outside' one, say Wordsworth's 'jocund' daffodils, then the form of sense perception as such is social. This fact illuminates the animism of child and savage. Man's senses and not merely his most spontaneous thoughts are thoroughly animistic and in this sense social.

(*f*) The ultimate import of the theory for the system of knowledge as a whole lies in the fact that it represents, to all appearances, an indispensable means whereby the problems posed by man's uttermost *ideals* can be brought into connexion with scientifically analysed and established *facts*. The uttermost human ideal appears to be that of infinitely socialized feeling, which may be taken as the definition of spirituality or love. Science, on the other hand, deals with the sensuously observable surface of the world, construed in terms of arithmetical quantities and geometrical structures. Every one of these elements characteristic of aspiration or of science is brought together in the concept of sense experience as a continuum, i.e. a geometrical and potentially quantitative order, of social affectivities.

(38)

ZUR APRIORISCHEN GRUNDLEGUNG DER WAHRSCHEINLICHKEITSTHEORIE

G. KATKOV

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1. WENN wir von der Wahrscheinlichkeit eines Ereignisses sprechen, so geschieht das in derselben uneigentlichen Weise, wie wenn wir von der Wahrheit eines Ereignisses sprechen. Wahrscheinlich (respective wahr) kann nur ein *Urteil* über ein Ereignis sein.

2. So wie das Prädikat 'wahr' kein wirkliches psychologisches Prädikat eines Urteils ist, sondern nur eine *denominatio extrinseca*, so auch nicht die Bezeichnung 'wahrscheinlich'. 'Wahr' sagen wir von einem Urteile dann aus, wenn wir ein ihm widersprechendes, das zugleich evident wäre, für unmöglich halten. Es ist also das 'wahr' genannte Urteil gar nicht zum Gegenstande der Beurteilung gemacht, da es nicht einmal zu sein braucht, damit es 'wahr' genannt werden kann, d.h. damit ein ihm widersprechendes und zugleich evidentes Urteil unmöglich sei.

Ähnliches gilt für die Bezeichnung 'wahrscheinlich'. Wenn wir von einem Urteile Wahrscheinlichkeit prädizieren, so wollen wir nicht eine Eigenschaft oder eine andere reale Bestimmung des Urteilenden als solchen angeben, wie es jene gewollt haben, welche dabei an Intensitätsstufen des urteilenden Verhaltens gedacht haben. Es ist aber auch nicht an Intensitätsunterschiede des rationalen (quasi-evidenten) 'Vermutens' zu denken.

Was ist also mit der Bestimmung 'wahrscheinlich' gemeint?

3. Wir sprechen von wahren Urteilen nur dann, wenn wir wissen oder zu wissen glauben, wie ein evidentes Urteil *nicht* beschaffen sein kann.

Von Wahrscheinlichkeit sprechen wir aber erst dann, wenn wir das nicht wissen. Die klassische Theorie sieht in dem Wahrscheinlichkeitsbruche nur den Ausdruck dieses Nichtwissens. Habe ich keinen Grund, einen der zwei kontradiktorischen Urteile dem anderen vorzuziehen (d.h. weiss ich nicht, welches das richtige ist), so drücke ich mein Wissen und Unwissen dadurch aus, dass ich beiden Urteilen die Wahrscheinlichkeit 1/2 zuspreche.

In anderen Fällen von vollständiger Disjunktion einander ausschliessender Urteile, von denen mindestens eines notwendig wahr ist, ergeben sich andere Brüche. Dieses Prinzip hat seinen prägnanten Ausdruck in der Laplaceischen Definition gefunden. Allein diese Definition hat die Geister nie vollständig befriedigen können.

4. Den tiefsten Grund dieser Bemängelung glauben wir darin zu sehen, dass die Angabe des Wahrscheinlichkeitsbruches doch mehr besagt, als sie nach der Laplaceischen Definition besagen würde.

Wenn wir eine Urne *A* mit einer schwarzen und einer weissen Kugel nehmen und sagen die Wahrscheinlichkeit weiss zu ziehen sei 1/2, so besagt das doch mehr, als dass es zwei Eventualitäten gibt von denen eine eintreten wird und wir ebenso wenig wissen, ob es die eine oder die andere sein wird. Vergleichen wir diesen Fall mit dem, wo wir in einer Urne *B* eine weisse, eine schwarze und eine rote Kugel haben. Der Wahrscheinlichkeitsbruch 1/3 besagt hier nicht nur, dass eine der drei einander ausschliessender Eventualitäten, ungewiss welche, eintreten wird, sondern besagt auch, dass wir im Vergleich mit dem ersten Falle, in gewissem näher zu erörterndem Sinne *weniger* berechtigt sind z. B. den Zug einer weissen Kugel aus dieser Urne *B* vorauszusagen, als den Zug einer weissen Kugel aus der Urne *A*. Und nicht nur, dass wir weniger berechtigt sind sondern auch um wieviel weniger (immer in jenem genauer zu definierendem Sinne) wir berechtigt sind, gibt dieser Bruch genau an.

Davon ist aber in der klassischen Definition nichts gesagt.

Gibt der Wahrscheinlichkeitsbruch nur das Verhältnis der günstigen Fälle zu den möglichen, so ist damit noch nicht erklärt, warum wir den grösseren Bruch dem geringeren logisch vorziehen; mit anderen Worten: es bleibt die Frage, *warum* die Wahrscheinlichkeit eines Urteils durch das Verhältnis der günstigen zu den möglichen bestimmbar ist, unbeantwortet.

5. Den ontologischen Spekulationen Meinongs und dem extremen Empirismus möchten wir folgende Argumentation gegenüberstellen:

Wir haben gesehen, dass von Wahrscheinlichkeit nur bei Urteilen gesprochen wird, von denen man nicht weiss, ob sie wahr oder falsch sind. In solchen Fällen scheint es überhaupt logisch geboten zu sein, keines von den zweifelhaften Urteilen zu fällen. Das logisch korrekte Benehmen besteht darin, dass man das sog. disjunktive Urteil fällt. Dieses ist keinesfalls eine besondere auf den Gegenstand gerichtete Intention, sondern vielmehr ein Urteil über Urteile, von denen behauptet wird, dass eines und nur eines von ihnen wahr sein kann. (Brentano hat diese Lehre vertreten und Stumpf sie für die Wahrscheinlichkeitstheorie verwertet.)

Wenn man in einer Urne eine weisse und eine schwarze Kugel hat und ganz korrekt über den Ausgang eines Zuges urteilen will, so ist das einzig korrekte Verhalten zu sagen, dass es zwei Urteile gibt, von denen wir nicht wissen, welches das richtige ist. Dieses unser Unwissen können wir auch so ausdrücken: wir urteilen nicht, dass das Urteil 'wenn gezogen wird, so wird weiss gezogen' unmöglich evident sein kann, aber auch nicht, dass das Urteil: 'wenn gezogen wird, so wird schwarz gezogen' unmöglich evident sein kann.

Wenn wir jetzt über die Wahrscheinlichkeit des Urteils 'es wird eine weisse Kugel gezogen' uns ein Urteil bilden wollen, so fragen wir uns, meines Erachtens, etwa Folgendes: inwiefern entspricht dieses Urteil jenem ganz korrekten Verhalten, welches in dem sog. disjunktiven Urteile seinen Ausdruck findet.

Und da bemerken wir: insofern stimmt es teilweise mit ihm überein, als wir auch jetzt behaupten können: wir urteilen nicht, dass das Urteil—'wenn gezogen wird so wird weiss gezogen'—unmöglich evident sein kann; insofern aber befindet es sich mit dem ganz korrekten Verhalten teilweise *nicht* im Einklange, als es das Urteil 'wenn gezogen wird, so wird schwarz gezogen' implizite für unmöglich erklärt.

Und so erscheint uns das Urteil: '—es wird, wenn gezogen wird, weiss gezogen' *teilweise* mit dem ganz korrekten Verhalten verträglich, *teilweise* unverträglich. Wenn wir 'unverträglich' sagen, so meinen wir nicht, dass es sich mit dem korrekten Verhalten in Widerspruch befände; dann wäre es offenbar falsch. Aber es werden Urteile impliziert, welche bei ganz korrektem Verhalten nicht gefällt werden könnten, da man sich über ihre Wahrheit nicht im klaren ist. In unserem Fall haben wir zwei Urteile impliziert gefunden, von denen eines mit dem korrekten Verhalten übereinstimmt, d.h. unbedingt richtig ist, das andere aber blind und unsicher. Wären alle implizierten Urteile richtig, so wäre auch das implizierende Richtig; so aber ist dieses Verhältnis der implizierten korrekten zu den implizierten unkorrekten ('unkorrekt' nicht im Sinne von Falsch, sondern im Sinne von 'unberechtigt', 'blind') wie 1 zu 1. Dieses Verhältnis ist eben durch den Bruch 1/2 angegeben, indem man damit zum Ausdrucke bringt, dass die implizierten Urteile zu einer Hälfte dem ganz korrekten Verhalten entsprechen zu einer Hälfte aber nicht.

Wenn wir dagegen in einer Urne *B* eine weisse, eine schwarze und eine rote Kugel haben, so besteht das korrekte Verhalten (1) in dem Disjunktionsurteile und (2) in der Behauptung: ich leugne weder die Unmöglichkeit der Evidenz eines Urteils, das den Zug einer weissen, noch dessen, das den Zug einer roten, noch dessen, das den einer schwarzen Kugel behauptet. Fragen wir uns jetzt nach der Wahrscheinlichkeit des Zuges einer weissen Kugel aus der Urne *B*, so sehen wir, dass das Urteil 'es wird eine weisse Kugel gezogen' auch jetzt nicht die Unmöglichkeit dieses Urteils, welches den Zug der weissen Kugel behauptet in Anspruch nimmt und insoferne mit dem ganz korrekten Verhalten in Übereinstimmung ist. Allein es impliziert die Behauptung, dass sowohl das Urteil, welches den Zug der roten als auch das, welches den Zug der schwarzen Kugel behauptet, unmöglich evident sein können und soweit stimmt es mit dem korrekten, logisch gerechtfertigten Verhalten nicht überein. Das Verhältnis der implizierten korrekten Urteilen zu den implizierten unkorrekten ist wie 1 zu 2, und wir sagen das implizierende Urteil hat ein wahrscheinlichkeit 1/3, indem wir zum Ausdruck bringen, dass die implizierten Urteile zu einem drittel mit dem korrekten Verhalten übereinstimmen zu zwei drittel nicht. Wenn wir den Fall der Urne *B* mit dem der Urne *A* vergleichen, so sehen wir deutlich, warum wir im ersten Falle der Urne *A* den Zug der weissen Kugel mit mehr Recht behaupten können, als in dem der Urne *B*. Das erste Mal ist das Urteil mit dem ganz korrekten Verhalten verträglicher als in dem zweiten, die implizierten Urteile stimmen mit dem ganz korrekten Verhalten im Falle der Urne *A* zur Hälfte, im Falle der Urne *B* zum Drittel überein.

Das allgemeine Prinzip der Bildung der Wahrscheinlichkeitsbrüche wäre demnach Folgendes. Die Wahrscheinlichkeit eines Urteils erscheint umso grösser, je mehr es Urteile impliziert, die in Übereinstimmung mit dem ganz korrekten logischen Verhalten, nämlich dem sog. disjunktiven Urteile und dem Wissen von der eigenen Unwissenheit, sind; und umgekehrt; die Wahrscheinlichkeit ist umso geringer, je mehr es solche Urteile impliziert, welche mit dem logisch korrekten Verhalten nicht übereinstimmen.

Es folgt selbstverständlich daraus, dass der sich aus dieser Definition ergebende Bruch mit dem aus der Laplaceischen folgendem identisch ist. Nur findet er in unserer Definition seine logische Begründung.

6. Wir erwarten von dieser Auffassung eine gewisse Klärung der Probleme, welche in der Geschichte der Wahrscheinlichkeitstheorie keine endgültige Lösung gefunden haben und in der letzten Zeit mit grossem Scharfsinn von Keynes behandelt worden sind.

Wenn wir eine Urne vor uns haben mit weissen und schwarzen Kugeln, dessen Verhältnis uns völlig unbekannt ist, können wir nicht sagen, dass das Urteil 'es wird eine weisse Kugel gezogen' ebensoviele Urteile impliziert, die mit dem korrekten Verhalten verträglich sind als solche die es nicht sind. Erst wenn wir das Verhältnis der implizierten Urteile kennen, können wir den Bruch angeben. Aber nicht nur das. Es müssen die implizierten Urteile selbst vom gleichen Umfange sein, in bezug auf die Anzahl der uns interessierenden Implikationen. Welche sind es aber, die uns interessieren? Diejenigen Urteile, welche mit den Urteilen des korrekten Verhalten übereinstimmen, oder Urteile für wahr oder falsch erklären, über die wir bei ganz korrektem logischem Verhalten nur unsere Unwissenheit bekennen müssen. Wenn also Keynes das Indifferenzprinzip nur dann gelten lässt, wenn wir wissen, dass kein relevantes Urteil für die eine Eventualität gilt, welchem bei den anderen Eventualitäten nicht auch ein symetrisches relevantes Urteil entspräche, so heisst das in die Sprache einer psychologischen, psychognostischen Analyse übersetzt nichts anderes, als das, was wir eben gesagt haben, da die Forderung der Symmetrie nur die Forderung der Gleichheit der Implikationen beinhalte; jene Urteile aber, welche man als relevant bezeichnet, sind jene, welche entweder eine Gleichheit oder eine im obigen Sinne verstandene Abweichung vom korrekten logischen Verhalten zeigen.

7. Zu den Vorteilen der vorgebrachten Auffassung gehört es, dass sie nicht nur für die zahlenmässige Wahrscheinlichkeit, sondern auch für jene der Hypothesen eine einheitliche Basis bringen kann. Ist ja doch das oberste Prinzip der Hypothesenbildung: möglichst vieles mit möglichst wenigen Annahmen zu erklären, nichts anderes als die von uns angegebene Grundlage für die Bildung der Wahrscheinlichkeitsbrüche. Von mehreren Hypothesen ist diejenige die wahrscheinlichere, welche am wenigsten neue bis jetzt nicht als wahr erwiesene Annahmen impliziert und zugleich die grösste Zahl schon bekannter Tatsachen erklärt, d.h. die grösste Zahl der als richtig erwiesenen Urteilen impliziert. Hier ergibt sich also die Wahrscheinlichkeit einer Hypothese auch aus dem Verhältnisse der implizierten blinden zu den implizierten korrekten Urteilen.

Dass bei der Hypothesenbildung die Wahrscheinlichkeit meistens nicht zahlenmässig definiert werden kann erklärt sich daraus, dass die implizierten Urteile nicht immer abzählbar sind. Das dabei nichtdestoweniger von einem mehr und weniger gesprochen werden kann, erklärt sich aus demselben Umstande aus welchem wir von grösserem oder geringerem Umfange von Begriffen sprechen ohne dabei an irgendwie zahlenmässig bestimmbare Grössen zu denken. Und zwar ist jene Hypothese die wahrscheinlichere, welche bei gleicher Leistung Annahmen von geringstem Umfange impliziert. Hier ist es notwendig einen Unterschied zwischen positiven und negativen Annahmen einzuführen. Bei den positiven Annahmen, nämlich in den Fällen, wo eine Hypothese die *Existenz* von etwas postuliert, ist die Annahme umso wahrscheinlicher je unbestimmter jenes Ding (oder jene Menge von Dingen) dessen Existenz postuliert wird, definiert ist.

Dagegen ist eine negative Hypothese umso wahrscheinlicher je geringer der Umfang und je bestimmter der Inhalt des geleugenten Begriffes ist.

Dieser Unterschied zwischen der Wahrscheinlichkeit der positiven und negativen Hypothesen, hängt mit dem allgemeinen, von Franz Brentano so oft hervorgehobenen Gesetz zusammen, dass die negative Urteile ihrer Natur nach allgemein, die positiven dagegen particulär sind.

8. Bei den positiven Annahmen ist immer daran zu denken, dass jede Bejahung eines Dinges die Bejahung der zu seiner Existenz notwendiger Ursachen impliziert. Deswegen ist nie aus der vollständigen Disjunktion, welche das Sein und Nichtsein eines Dinges bilden auf das Sein dieses Dinges mit Wahrscheinlichkeit $\frac{1}{2}$ zu schliessen. Die Existenz dieses Dinges setzt eine Fülle von Ursachen voraus, seine Nichtexistenz dagegen keine.

Erst wenn man die Hypothese des absoluten Zufalls voraussetzen wollte, wie das Franz Brentano in seinem Beweise für den Satz der allgemeinen Notwendigkeit tut, können wir schliessen, dass in jedem Momente das Sein eines Dinges ebenso wahrscheinlich ist wie sein Nichtsein, da die Bejahung des Dinges der Annahme zufolge nicht mehr implizieren kann, als die Verneinung.

Allein, wie das Brentano in seinen Ausführungen zeigt, führt diese Argumentation zu Widersprüchen und zu Widerlegung der Hypothese des absoluten Zufalls *per reductionem ad absurdum.*

THE RELATION BETWEEN TIME AND ETERNITY IN THE LIGHT OF CONTEMPORARY PHYSICS

F. S. C. NORTHROP

(*Yale*)

WHEN some future historian looks backs upon the last three centuries, he will characterize them as the age which discovered the importance of time, but was misguided by the false notion of its primacy. A consideration of the problem of time and eternity in conjunction with relativity physics will suffice to make this clear.

The Modern world would define the eternal in terms of the temporal: eternity is but the endlessness of time. But there is no necessary reason why this should be so. Eternity may be identified with the principle of being, which means that the real does not change its properties, and time, with the principle of becoming, which means that the real does change its properties. In this case eternity is quite independent of time. Such a definition makes it evident that omniscience is not necessary for an experience of the eternal. It is exhibited in anything taken at its face value, which has fixed properties. This page, as it actually appears, is an example. To suppose that it will crumble to dust to-morrow is an inference, and not an original datum of experience, as is the whole sophisticated construction of yesterdays, to-days, and to-morrows. Nor is this conclusion voided necessarily, if the inference happens to be valid. For the agreement which justifies it may presuppose the primacy of eternity. These considerations suggest that eternity may be the primary concept and time its derivative.

Greek science and philosophy believed this to be the case. Nature first impressed them as being changeless stuff. Thales came before Heraclitos. Moreover, even after both of these extensive facts were recognized, the notion of eternity was made primary. The philosophy of Parmenides means this. Greek inorganic science, with its mathematical conception of nature as a system of ideal eternal geometrical forms, agreed with him. To this opinion of Greek science, Plato gave articulate expression. Accepting this mathematical theory, he had no alternative but to place eternity in the real world of forms, and time in the apparent world of sensation, and be concerned henceforth with the problem of explaining the relation between them. The physicists, Leucippos and Democritos, agreed also. Their atomic theory rests on the principle of being. Even Aristotle, who reared his philosophy on the principle of becoming and was greatly impressed by the biological fact of generation, could not escape from the constant and eternal aspect of things. Greek science and philosophy remains a mystery unless the changeless character of reality is an immediate, obvious deliverance of observation.

Not until the seventeenth century did time appear as an important concept in science. Greek and Medieval thought regarded eternity as primary. Why did the Modern World reject this opinion? The immediate answer is to be found in Galileo's discovery that force produces a change of velocity with time. Henceforth no motion could be described, without time being considered. When Newton demonstrated this for the whole of astronomical nature the importance of time was inescapable.

But it was not until after Darwin that man turned this concept into a philosophy, and proceeded to order the whole of reality and experience in terms of it. With Darwin time appeared as the key to the classification of living things; man sensed himself as the product of a purely temporal process. And reasoning anthropomorphically, he argued that what is true of man is true of nature. Thus stellar evolution followed on the heels of organic evolution. And then came emergent evolution. Reality was not merely a process in time, but time was the internal urge of its advance. The universe threatened to proceed toward Heaven so fast, there was danger lest it run by. But if everything is temporal, the second law of thermodynamics must be also. This time it is a physicist who speaks. 'Danger of running by?' he says, 'It has done so already and is far on its way to chaos.' Thus the temporally-minded biologists who would rush us all to Heaven are answered by the temporally-minded physicists who would hasten us as inevitably to Hell. All of which is precisely what one would expect from philosophers who take time as primary. We are going, enduring, emerging, but no one knows where, or for what.

But if we are so uncertain of our destination, can we be absolutely sure of our way? In other words, is the modern notion of the primacy of time as secure as traditional science suggests, and contemporary philosophy and life assumes? Two important factors indicate that it is not. The one is Newtonian mechanics itself, which gave rise to the doctrine, the other, relativity physics.

Newtonian Mechanics and the Concept of Time.

We have noted how the physics of Galileo and Newton revealed the importance of the concept of time. A closer analysis of its principles indicates, however, that it made this concept primary only by incurring an inconsistency in its doctrine. Newtonian mechanics is a physical theory; nature is conceived as a system of physical objects in motion. The Greeks proved that this cannot be the case unless it is also kinetic atomic in character. Now the kinetic atomic theory rests on the principle of being, regards change and time as a mere rearrangement of the changeless, and, hence, makes the concept of eternity fundamental. Why then did Newtonian mechanics make time primary? This question becomes the more acute when one notes that a vicious circle resulted. A theory which must define time in terms of motion, used time to define what it means by motion.

The reason for this unnatural and inconsistent development of its doctrine is to be found in Greek science. The cause of the difficulty is the problem of motion. It appeared when Parmenides proved that motion necessitates a referent in addition to the microscopic particles. The error appeared, as Zeno proved at the time, when this referent was identified with space. Thereby the spatial part of the spatio-temporal character of motion was abstracted from the motion, and turned into an entity independent of the moving mass. Hence, when time was found to be important, no alternative remained but to regard it as an entity independent of space and matter. Thus a theory which must treat motion as primary and time as its effect, fell into the inconsistency of defining motion in terms of absolute space and time.

Such is the insecure basis of the modern doctrine of the primacy of time. No systematic scientific or philosophical system before Newton included it, and even in his case, it owns its existence to an inconsistent development of physical theory. Obviously, this could not endure. The end came with Einstein.

Relativity Physics and the Concept of Time.

The most elemental idea in relativity theory is its doctrine concerning time. It arose when Einstein asked what the physicist means by the simultaneity of spatially separated events. Einstein noted that immediately given simultaneity is not the physicists' meaning, for it does not apply, because of the dependence of vision upon light propagation, unless one is equidistant from the two events in question. This consideration suggested the answer. Two spatially separated events are simultaneous if light rays from both reach a mid-point equidistant from both simultaneously. In other words, the simultaneity of spatially separated events is defined in terms of the simultaneity of spatially coexistent events *and light propagation.* The latter point is of crucial importance for our problem, because it means that time is deprived of its primacy and defined in terms of physical propagation or motion. In the general theory the same thing happens to space-time, whether Riemannian or Euclidean. All temporal and geometrical structures are relative and are conditioned by, and defined in terms of, the distribution of matter. Only matter and motion remain as primary.

No longer can motion and natural processes be regarded as occurring in space, or time, or space-time. The attempt to classify reality in terms of time must be rejected. No philosophy is more incompatible with contemporary physical science than emergent evolution. What is true of philosophy is true of physics. It is impossible to understand even the most elementary of current physical conceptions without removing the notion of the primacy of time from one's mind. Take such an elementary idea as the verified fact that the measured velocity of light is the same relatively to all bodies. This is nonsensical unless one recognizes that physical light propagation is primary, and is used to define time and space relatively to different bodies of reference. The same fact is true with reference to G. N. Lewis's theory of virtual contact,[1] and the second law of thermodynamics.

But if light propagation and matter and motion are primary, and do not exist and move in space or time, with reference to what do they exist and move? Certainly Parmenides has proved that there can be neither many material substances nor motion unless there is something other than the moving substances. If they do not move in space and time then what do you mean by atomicity and motion? Again we find ourselves facing the ancient problem of motion which was the cause of the modern fallacy concerning the primacy of time. It must be said that Einstein has not answered our question. For he has done away with the modern error without meeting the difficulty which provoked it. He leaves the problem of motion unsolved. Physics as it comes from his hands only meets one difficulty by creating another. Many objects and motion are revealed to be primary, yet no meaning is provided for the referent

[1] G. N. Lewis, *The Anatomy of Science,* Yale University Press.

which they require. I have given reasons elsewhere [1] for believing that this difficulty can be met only by replacing the geometrical referent for atomicity and motion, introduced by Leucippos, with a physical spherical atom which surrounds and congests the traditional microscopic atoms of the whole of nature.

I propose now to take this solution of the problem of motion for granted, and consider its implications with reference to the problem of time and eternity. It may be noted that the macroscopic atomic theory provides an answer to our last question. Microscopic atoms do not move, nor does light propagation occur, in space and time; instead they move and *are* in the macroscopic atom. Moreover, since this atom has fixed properties it obeys the principle of being. This principle is what we mean by eternity. Hence it is literally true that natural processes are in eternity rather than in time. Time is an effect of their being, but neither a condition of, nor a ground for it.

The ancient and modern answers to the problem of time and eternity appear to represent two extremes. There is a reality about, and a difference between, these two concepts, to which the ancient doctrine that one is apparent and the other real does not do justice. Time is too important to be merely phenomenal. This is the lesson which modern science has taught us. But the importance of time is not to be identified with its primacy. This identification is the basic error of modern thought. The macroscopic atomic theory preserves the truths grasped by the Ancients and Moderns because it enables one to identify the eternal aspect of nature and experience with the effects of the changeless form of the macroscopic atom, and their temporal character with the changing relations and molar properties arising from the motion of the microscopic particles. Both time and eternity are real. Their difference centres in the fact that the real has two types of atomic parts, one of which is at rest, the other in motion.

Since every system in nature is constituted either directly or indirectly by the inner field and fixed form of the macroscopic atom, as well as by the varying relations of the microscopic particles, man is not a purely temporal creature. An element of the eternal is in him, as in everything else.

What is true of man and nature must be true of knowledge. Most of the modern difficulties with reference to the theory of knowledge and the justification of induction have their basis in the assumption of the primacy of time. Once this is admitted the scepticism of

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[1] *The Journal of Phil.* xxv, pp. 449–67. *Proc. of Nat. Acad. of Science*, *16*, pp. 55–68.

Hume is inevitable. How is science possible if we know only what happens now? Undoubtedly much of knowledge has this temporal character. But if nature is a union of local microscopic relative temporal factors and a general macroscopic absolute eternal factor, then the eternal should exhibit itself for observation along with time in the obvious extensive characteristics of nature. The history of science indicates that this is the case. For the Greeks, who perceived the first obvious characteristics that nature revealed to scientific minds, found the eternal immediately and could never escape its presence.

Similarly, if man is a union of the eternal and the temporal, he approaches knowledge as much from the point of view of eternity as from the point of view of this fleeting moment. Not only are singular and hence universal propositions given by induction, but man is of such a nature that he can know them.

In this fashion, the new physics, as it necessitates the macroscopic atomic theory, would defend the philosophical validity o its theories before the criticisms of Hume, by combining the ideas of time and eternity to merge the transcendental and logical emphasis of Greek thought with the temporal and physical emphasis of traditional modern science.

DE LA SIGNIFICATION DES FAITS

JACQUES CHEVALIER

(*Grenoble*)

1. UNE philosophie de l'histoire peut-elle s'accorder avec les faits de l'histoire? Telle est la question qui se pose, et dont il importe, pour y répondre exactement, de bien préciser les termes. L'accord dont il s'agit ici ne peut être qu'un accord interne, pareil à l'accord d'un homme avec lui-même au cours de son existence: l'accord issu d'une affinité essentielle et durable entre un principe et les faits, et non pas celui qui résulte d'un système imposé du dehors aux faits qu'il prétend expliquer et dont il méconnaît l'âme. Un exemple concret nous fera toucher du doigt la différence.

Lorsqu'au principe cartésien d'après lequel le plus ne saurait venir du moins on opposait les prétendus faits de génération spontanée, Descartes aurait pu répondre, selon son mécanisme, que la vie n'est pas plus que la matière: mais son mécanisme n'était qu'une théorie, dont il savait bien lui-même qu'elle était conventionnelle; au contraire, son 'beau principe naturel', s'il paraissait contredit par les apparences, ne pouvait être en désaccord avec les faits. C'est pourquoi Descartes affirma que les apparences ne nous livraient pas le fait, c'est-à-dire la cause totale: ce qui fut vérifié par Pasteur deux siècles plus tard. Son principe était si bien d'accord avec les faits qu'il permettait, non seulement de les interpréter, mais de les redresser et de les voir tels qu'ils sont, non tels qu'ils nous apparaissent.

Une philosophie de l'histoire véritable ne saurait être, ainsi, qu'une philosophie fondée sur des *principes naturels*, et non sur des *théories conventionnelles*. Elle ne sera valable que si elle est apte à rendre compte des faits, si elle se soumet à eux et se modèle sur eux.

Pour répondre à la question posée, il faut donc partir, non de la philosophie, mais des faits. La vraie formule en parait être celle-ci: les faits donnés sont-ils susceptibles de recevoir une interprétation qui les explique, sans les défigurer?

2. Les faits s'imposent. Mais qu'est-ce qu'un fait? La réponse à cette nouvelle question n'est pas simple.

Il faut se garder de confondre le fait et le phénomène. En physique, le mouvement relatif est le phénomène; le mouvement absolu est le fait. Or, le premier ne nous livre pas le sens du second, c'est-à-dire sa cause. En psychologie, plus clairement encore, les phénomènes qui signalent le fait ne nous renseignent ni sur la cause ni, par conséquent, sur le fait lui-même: des signes d'inattention peuvent traduire un état d'attention, qui, s'il est accessible, ne peut l'être que du dedans, à la conscience qui l'éprouve. Il en va de même des faits historiques. La veille d'une bataille, le chef dort. Est-ce inertie? est-ce maîtrise suprême? La plupart, jugeant sur l'apparence, concluront à l'inertie; mais les autres savent qu'on reconnaît un chef à ce qu'il sait dormir aux heures tragiques.

3. L'esprit humain ne connaît que les phénomènes abstraits et leurs rapports; il n'atteint jamais directement — si ce n'est chez lui, et encore — le fait lui-même, dans son essence concrète. C'est que les phénomènes seuls sont visibles: nos sens abstraient spontanément, comme notre intelligence, dont ils sont les instruments. Le fait en lui-même est invisible: il est l'invariant réel, mais inconnu, qui permet la traduction d'un langage dans un autre, et que l'esprit ne saisit jamais qu'à travers ses formules incomplètes et variables. Il est plus particulièrement, en histoire, l'énigme que l'esprit s'efforce de restituer à travers les témoignages contradictoires dont chacun exprime la vision préconçue de témoins qui n'ont vu d'un même phénomène que ce qu'ils en ont voulu voir.

4. Pourtant l'esprit humain, quoi qu'il prétende et quoi qu'il fasse, ne saurait s'en tenir aux apparences. Copernic et Ptolémée sont d'accord sur les apparences: ils ne sont pas d'accord sur le fait. Or, c'est le fait qui importe, c'est lui que nous voulons connaitre. Est-ce la terre qui tourne? est-ce le soleil? Si la question n'a pas de sens pour le physicien, elle a un sens pour le métaphysicien, c'est-à-dire pour l'homme. A plus forte raison en est-il de même en histoire: ce ne sont pas les apparences qui gouvernent le monde, mais les faits.

D'ailleurs, par les ambiguïtés et les contradictions qu'elle présente, la nature visible elle-même nous incite, bien plus elle nous contraint, à la dépasser. Les premiers hommes qui aient médité sur le réel, Platon et Aristote, l'avaient observé: ce doigt qui est petit par rapport à l'un, grand par rapport à l'autre, nous force à réfléchir sur la grandeur spatiale; la recherche universelle du bonheur, et l'universelle diversité des opinions sur son essence, nous forcent à suivre le mouvement de la nature, de son principe jusqu'à sa fin, pour voir à quoi il tend et ce qu'il signifie.

5. L'esprit ne connaît rien tant qu'il ne connaît pas les faits. Or, un fait est inséparable de son sens, donc de son interprétation, tout comme un mot est inséparable de son contexte.

C'est pourquoi les animaux sont incapables de connaître: ils ne voient que les phénomènes, ils ne voient pas les faits. Un cheval perçoit le nervosité de son cavalier, il ne saurait en soupçonner le génie. Un bâton, un panier, sont pour l'animal de simples apparences sensibles, dont l'usage et le sens lui échappent. L'univers réel lui demeure fermé, parce que l'univers réel n'est perceptible qu'aux yeux de l'esprit.

C'est pourquoi encore, chez l'homme, le symptôme le plus net de la dissolution de l'esprit est l'incapacité de construire une phrase ou d'en comprendre le sens: les matériaux subsistent seuls, incompris. L'univers n'est plus, pour le malade, qu'un discours décousu. Ce que l'on entend, ce sont les mots. Ce que l'on comprend, c'est la phrase, ou ce que veulent dire les mots. Pour celui qui ne comprend plus, le mot masque la phrase: les phénomènes sensibles, eût dit Berkeley, sont un écran qui arrête la lumière des faits, insensibles et réels.

6. Tout se tient, dans l'univers physique comme dans l'univers moral. Séparer, abstraire, peut être une voie vers la compréhension du réel, mais à la condition qu'on ne s'y tienne pas: il faut prendre les faits ensemble, pour les comprendre. L'œuvre de Napoléon est incompréhensible encore si on la sépare de la Révolution, et elle est incompréhensible encore si on la sépare de Napoléon lui-même, de son génie, de ses desseins, des accidents qui ont gouverné sa vie.

La raison en est que tout fait est un événement, qui apparaît au point où s'entrecroisent plusieurs séries de conditions, dépendantes les unes des autres dans chaque série, indépendantes d'une série à l'autre. La science phénoménale, qui procède par abstraction, isole les séries, elle les suit, et prévoit de la sorte les possibles: mais elle ne peut ni prévoir, ni expliquer leur interférence, d'où résulte le fait lui-même. Ainsi, pour un peuple, la position géographique, les conditions physiques, les races, les institutions mêmes, ne sont que des possibilités ambiguës; elles ne font pas le peuple, elles ne commandent pas sa destinée. Or, ces possibilités ambiguës sont tout ce que peut atteindre une science calquée sur les sciences phénoménales: nos sciences peuvent bien déterminer rigoureusement la probabilité des événements possibles, elles ne peuvent prévoir le choix qu'en fera la nature, et qui est l'événement lui-même.

7. Est-ce à dire qu'il existe dans la nature un principe d'indétermination radical?

Il serait téméraire de conclure de l'incertitude foncière de nos moyens d'investigation à une indétermination foncière du réel.

En un sens très assuré, il faut dire que tout dans la nature est déterminé: il n'y a pas d'effets sans cause. Et les interférences même, que nous ne pouvons prévoir, ont une cause, comme elles ont un sens, bien que la plupart du temps leur cause et leur sens nous demeurent cachés.

Mais le déterminisme qui gouverne la nature est un déterminisme statistique, et non pas un déterminisme mécanique. Il ne saurait s'appliquer aux éléments derniers qu'il régit — lesquels d'ailleurs n'acquièrent une indépendance véritable que là où apparaît une structure complexe, marque de l'individuel et condition de la liberté. Toutefois, cet ordre statistique préfigure, à un plan supérieur, la libre initiative des individus, et lui prépare une place dans le cadre immuable, mais diversifié, des déterminismes naturels.

8. Une brève analyse du hasard nous permettra de projeter quelque lumière sur ce point obscur entre tous.

On englobe à tort, sous le nom de hasard, les phénomènes instables, quelconques, dont le grand nombre, par compensation, donne des moyennes stables — c'est en cela que consiste le déterminisme statistique — et l'événement, qui dépasse le limite des compensations et produit une rupture d'équilibre, comme une vague qui saute — c'est en cela que consiste le fait de contingence. Or, le hasard dont il est permis de dire légitimement qu'il est le maître du monde ne saurait être que le hasard au second sens. Il dénote moins une indétermination qu'un déséquilibre ou dénivellement créateur de faits nouveaux; et ce déséquilibre a ses causes: mais ces causes sont tout autres que les causes phénoménales et ne se laissent pas, comme elles, réduire à des lois.

L'histoire est le domaine par excellence du hasard ainsi compris: c'est pourquoi Fustel de Coulanges n'avait pas tort de dire que les faits historiques ont des causes, mais n'ont pas de lois. Et c'est pourquoi, si l'on peut donner une explication des faits historiques, on n'en peut établir une philosophie au sens systématique du mot.

9. Deux traits fondamentaux caractérisent l'histoire.

Le premier est le rôle prépondérant qu'y jouent les causes particulières, les 'petites causes', les 'causes accidentelles', ainsi dénommées parce qu'elles ne sont pas réductibles à des lois générales. L'accidentel, en histoire, est la règle, et, pourrait-on dire, l'essentiel.

D'autre part, les faits de l'histoire ne sont pas anarchiques. Ils ne se succèdent pas seulement, ils s'enchaînent, selon un ordre qui naît, en apparence, du désordre: un ordre inattendu — car c'est toujours l'imprévu, en histoire, qui arrive—mais un ordre véritable, et tel qu'une moyenne de justice finit toujours par s'établir à la longue, sur des motifs qui n'en sont pas la cause prochaine, et par des voies qui ne sont pas celles que nous prévoyions.

Cet ordre se marque surtout par le développement de la civilisation humaine: et ce développement, qui a un sens, car il est un progrès, résulte précisément de la prédominance exercée par les particularités individuelles, que le déterminisme statistique élimine, alors que le déterminisme historique en procède.

10. Assurément, il y a des constances en histoire: ce sont celles que le sociologue s'efforce de dégager. Mais ces constances, qui se traduisent par l'imitation, la tradition, les similitudes dans l'espace et dans le temps, ne dirigent pas les événements (quelle loi sociologique expliquera Jeanne d'Arc?): elles les freinent seulement, et parfois les arrêtent, sous le poids de leurs conséquences.

L'histoire qui marche est du genre d'une invention ou d'une initiative: imprévisible dans sa production, elle l'est encore dans la suite de son développement; elle ne dure et n'existe que dans la mesure ou elle s'affranchit des forces d'inertie et de répétition; et la science qui s'efforce de la retracer n'y est fidèle que dans la mesure ou elle s'affranchit de la science du général, qui est la science au premier degré, pour se rapprocher de la science de l'individuel, qui est la science véritable, la science des faits, lesquels sont toujours uniques. 'Les phénomènes historiques qui se répètent', observe Cournot, 'ne se répètent qu'avec des variantes qui témoignent, par le sens constant des variations, qu'il y a, outre les causes de reproduction, une cause de progrès continu'.

La philosophie de l'histoire s'efforce de dégager ce sens; elle ne saurait le fixer d'avance: il n'existe de prophètes que du passé; elle le constate, à grande distance, et à longueur de temps: car le temps vrai dissipe les apparences pour faire sortir le fait. Mais, en constatant le fait, l'histoire l'explique du même coup, puisque le fait, c'est la cause.

11. Cette cause est spirituelle en son fond: le matérialisme historique, en la méconnaissant, se cantonne au domaine des apparences, et ne va pas au delà du possible. Si les facteurs matériels provoquent les guerres, ce sont les forces spirituelles qui les gagnent. Et rien de durable ne se fonde que sur elles. Il n'y a de fait que spirituel.

Cette cause, en outre, est transcendante aux phénomènes et aux hommes eux-mêmes: car les hommes ne sont que des instruments qui, en servant leurs fins propres, concourent à des fins qui les dépassent, et les plus grands d'entre eux sont ceux qui, répondant à un appel inconnu, savent faire sa place au hasard, à l'accidentel, à l'imprévisible, et ne prévoient les conséquences des faits que pour y échapper ou pour les gouverner, selon les indications des événements, messagers du pouvoir supérieur qui mène toutes choses à leur terme.

12. Ni la sociologie, ni l'économie, ni la psychologie même ne sauraient donc fournir à l'histoire son principe: c'est dans la métaphysique seule, et dans une métaphysique issue des faits, qu'elle peut le trouver. Et c'est parce qu'elle est la plus métaphysique que l'histoire est aussi la plus réelle des sciences, celle qui nous introduit le plus directement au cœur même des faits.

CE QUI EST VIVANT ET CE QUI EST MORT DANS LA PHILOSOPHIE DE L'ANTIQUITÉ CLASSIQUE

CHARLES WERNER

(*Genève*)

LES considérations que je vais présenter traiteront de ce qui est vivant dans la philosophie grecque, plutôt que de ce qui est mort. J'estime, en effet, que les systèmes grecs, quelles qu'aient pu être leurs imperfections, renferment une profonde vérité, que les systèmes modernes n'ont pas toujours réussi à conserver. Assurément, la pensée moderne n'a pas été sans apporter à la philosophie un précieux renouvellement, et certaines de ses conquêtes ont une très haute valeur. Mais elle a présenté de graves lacunes, pour n'avoir pas su maintenir certains principes essentiels qui lui avaient été légués par la pensée ancienne. C'est cette supériorité, ou, si l'on préfère, cette situation privilégiée de la philosophie grecque par rapport à la philosophie moderne que je voudrais mettre en lumière sur quelques points capitaux.

Le privilège de la philosophie grecque, dans son effort pour comprendre l'Absolu, est d'avoir toujours considéré la perfection divine comme la loi qui se manifeste dans l'ordre du monde et qui préside au développement de tous les êtres. Déjà Thalès, le premier philosophe, disait que tout est rempli du divin. Mais c'est Anaxagore qui a exprimé fortement la pensée que les choses ont été mises en ordre par l'intelligence. Cette pensée a frappé d'admiration Socrate, alors qu'il méditait, dans sa jeunesse, sur les causes des choses, et l'a persuadé que l'intelligence a disposé les choses de la meilleure manière qu'elles pouvaient être. Et c'est cette même pensée qui a inspiré toute la philosophie de Platon. D'après Platon, la vraie cause, ce ne sont pas les éléments matériels, mais bien le type idéal auquel les choses répondent. Les choses existent en tant qu'elles participent à la perfection de l'Idée. Et la cause suprême, source de toute réalité, c'est l'absolue Perfection, dont l'éclat brille au sommet du monde intelligible. A vrai dire, Platon avait paru séparer le monde intelligible du monde sensible, de telle sorte qu'on eût de la peine à comprendre de quelle manière la perfection de l'Idée se réalise dans les choses. Cependant il n'a jamais abandonné la notion de participation, bien qu'il ait lui-même signalé les difficultés qu'elle pouvait présenter. Et, vers la fin de sa carrière, dans le *Timée*, il a voulu montrer que le monde sensible est une belle image du monde intelligible. Aristote, à son tour, a profondément élaboré la notion de finalité. Ce qu'il appelle la 'nature', c'est le principe de mouvement que les êtres portent en eux et par lequel ils tendent à la perfection de leur essence. Aristote démontre que la régularité des phénomènes naturels s'oppose à ce qu'on les attribue au hasard, et que la seule explication possible est donnée par la cause finale. De ce point de vue, il décrit le monde comme un tout harmonieux, qui manifeste l'ordre découlant du Premier moteur immobile. Après lui, les Stoïciens développent la notion de l'ordre du monde. S'il est vrai qu'Épicure ne veut pas admettre d'autre principe que les éléments matériels et le hasard, la pensée de Platon refleurit dans l'école d'Alexandrie. Contre les premiers philosophes chrétiens, contre les Gnostiques, Plotin déclare que le monde sensible participe à la beauté du monde intelligible. A travers le cours entier de son histoire, la philosophie grecque a été dirigée par l'idée, qui est l'idée philosophique par excellence, de la réalité souveraine de la perfection et de son universelle efficacité.

Or, cette idée est restée voilée dans les systèmes modernes. Descartes, pour constituer la physique mathématique, a séparé le monde de l'étendue du monde de la pensée, et a voulu expliquer l'univers par le seul mécanisme. A sa suite, Spinoza a proscrit la notion de finalité, dans laquelle il n'a vu qu'une infirmité de l'esprit humain. Mais la conception cartésienne, si elle a été très favorable au développement de la science positive et de ses applications techniques, ne peut pas rendre compte à fond de la réalité. C'est là ce qu'a bien compris Leibnitz; retournant délibérément au point de vue de la philosophie grecque, il a voulu restaurer la cause finale. Mais sa tentative n'était pas bien posée, et n'a pas suffi pour entraîner la philosophie moderne. Ce n'est que timidement et d'une manière détournée que Kant, après avoir réduit au mécanisme la nature entière, a fait une place à la finalité dans sa *Critique du jugement*, qui devait inspirer la philosophie de la nature de Schelling. De nos jours, M. Bergson a renvoyé dos à dos le mécanisme et la finalité. Mais on peut douter que sa critique de la finalité soit décisive. Si l'évolution est créatrice, c'est parce qu'elle répond à l'appel de la perfection. La perfection créatrice: telle est la véritable cause, aperçue par la philosophie grecque, et que la philosophie moderne, à son tour, devra mettre en pleine lumière.

C'est parce qu'elle n'a jamais perdu de vue que toutes choses dépendent de l'absolue Perfection, que la philosophie grecque a pu développer, de manière complète et harmonieuse, la partie morale de la philosophie. Car la morale est inséparable de la métaphysique. Ce n'est pas par hasard que Socrate a été tout à la fois le fondateur de la morale et l'inventeur de la théorie des causes finales. S'il ne s'était fortement convaincu de l'existence d'une Intelligence divine, disposant les choses pour le mieux, il n'eût pas découvert dans l'homme une intelligence renfermant en soi la règle du bien. La philosophie de Platon, en même temps qu'elle donne le modèle de toutes les métaphysiques futures, est essentiellement une philosophie morale. Ayant posé l'absolue réalité du Bien, Platon conçoit que l'homme doit se délivrer de toutes les entraves matérielles pour répondre à l'attrait du principe suprême. Cette même pensée inspire la morale d'Aristote. *L'Éthique de Nicomaque* est sans doute le traité de morale le plus complet que nous possédions. Mais ce grand ouvrage est soutenu d'un bout à l'autre et vivifié par l'idée que l'homme est destiné à la vie immortelle et bienheureuse qui est le partage de Dieu. Est-il besoin de rappeler, enfin, avec quelle force les Stoïciens ont insisté sur la parenté entre la raison humaine et la raison divine qui régit toutes choses. La morale grecque a été grande, parce qu'elle a toujours considéré l'homme, et l'univers entier, par rapport au principe absolument parfait dans lequel tous les êtres ont leur origine et leur fin.

Tout autre a été le point de vue de la philosophie moderne. Ayant renoncé à la notion de finalité, cette philosophie n'a pas pu mettre en lumière l'exigence de perfection qui est adressée à tous les êtres et particulièrement à l'homme. Aussi bien la morale est-elle beaucoup moins développée dans les systèmes modernes que dans les systèmes grecs. Les premiers philosophes modernes se bornent à reprendre certaines considérations stoïciennes. Le seul effort vraiment original et puissant a été fait par Kant; mais cet effort montre bien l'insuffisance de la conception moderne. Kant renverse le rapport normal entre la morale et la métaphysique: il fonde la métaphysique sur la morale, au lieu de fonder la morale sur la métaphysique. La moralité, chez lui, est posée comme indépendante du principe de perfection dont l'homme et toutes choses dépendent. Par un singulier paradoxe, Kant veut bannir de la morale la notion de but, et définir la moralité comme une forme sans contenu. Le formalisme, c'est-à-dire le vide: voilà le 'mal radical' dont souffre la morale kantienne. Plusieurs tentatives ont été faites pour remédier à ce défaut. La plus importante est celle de Hegel, qui a considéré les déterminations sociales comme donnant à la moralité son contenu. Mais cette conception détruit la morale, en la réduisant, non pas même au droit, mais à la société telle qu'elle existe en fait. Une réduction analogue a été proposée de nos jours, où certains positivistes ont voulu remplacer la morale par la science des mœurs. Ces deux tentatives, aboutissant à peu près au même résultat malgré l'immense différence des points de vue, marquent clairement l'échec, en morale, de la pensée moderne.

Mais ce n'est pas seulement en morale que la différence entre le point de vue moderne et le point de vue ancien s'est fait sentir: c'est dans toutes les parties de la philosophie. Comme exemples particulièrement caractéristiques, je prendrai le problème de la relation entre l'âme et le corps, et le problème de la connaissance.

Le problème de la relation entre l'âme et le corps a été, pour les systèmes modernes, une pierre d'achoppement. On reste confondu en voyant les difficultés dans lesquelles se sont embarrassés, sur ce point, les philosophes cartésiens. Ces difficultés sont venues de ce que la pensée moderne avait laissé échapper l'idée grecque de la pénétration de la matière par l'esprit. Descartes, comme nous l'avons dit, avait séparé le monde de l'étendue du monde de la pensée. Il avait posé le dualisme des deux substances: la substance pensante et la substance étendue. Par suite, ses successeurs ont jugé impossible d'admettre l'union réelle de l'âme et du corps. Malebranche et Leibnitz n'ont cru pouvoir expliquer cette union qu'au moyen d'une harmonie qui aurait été établie par Dieu entre deux séries radicalement indépendantes l'une de l'autre. Spinoza lui-même, malgré les apparences, ne réussit pas à rétablir l'unité: en affirmant que l'étendue exprime, au même titre que la pensée, l'essence de Dieu, il maintient, bien plus il accentue le dualisme des deux substances. On sait que la psychologie de nos jours s'est ralliée à cette notion du parallélisme entre l'âme et le corps. Sous une forme ou sous une autre, le dualisme a été la pensée dominante de la philosophie moderne.

Or, la solution du problème avait été trouvée par la philosophie grecque. Sans doute, Platon lui-même, gêné par la séparation entre l'Idée et les choses, n'avait pas fait comprendre l'unité de l'âme et du corps. Mais Aristote, en considérant l'Idée comme la forme, réalisée dans la matière, avait surmonté du coup le dualisme. D'après Aristote, l'âme est la forme du corps vivant: cela signifie que l'âme est le principe d'activité qui façonne le corps et fait de lui un organisme capable d'accomplir les fonctions de la vie. De ce point de vue, Aristote a posé l'unité de l'âme et du corps vivant. Le sens de sa théorie est qu'il n'y a pas deux substances, l'âme et le corps, mais que l'âme est la seule véritable substance, qui pénètre la matière, s'en empare et lui enlève toute existence indépendante. L'union de l'âme et du corps n'est pas l'incompréhensible union de deux choses, dont chacune pourrait exister à part de l'autre: c'est la prise de possession de la matière par l'esprit. On voit, pour ce qui est de ce problème capital, l'immense supériorité d'Aristote sur les modernes. Reprendre la théorie d'Aristote, en bien comprendre la signification, en développer toutes les conséquences, ce sera l'une des tâches essentielles de la philosophie de l'avenir.

Ce même avantage de la philosophie grecque se retrouve dans la théorie de la connaissance. De même qu'elle avait compris l'union de l'âme et du corps, la philosophie grecque a compris l'union de l'intelligence et des sens. Ici encore, ce n'est pas Platon, mais Aristote, que nous avons en vue. Platon est resté captif de la séparation qu'il avait établie entre l'intelligible et le sensible: il a pensé que les sens nous induisent en erreur, et que la vérité nous est donnée par l'intelligence seule. Mais Aristote a bien reconnu qu'il n'en est pas ainsi. En affirmant qu'on ne pense pas sans images, Aristote a signifié la collaboration, dans l'acte de connaissance, de l'intelligence et des sens, l'intelligence ayant pour fonction de dégager l'élément intelligible qui est contenu dans les données sensibles. Par là, il a fait la synthèse qui était nécessaire. C'est la synthèse aristotélicienne qui a donné, plus tard, à la théorie de la connaissance de saint Thomas d'Aquin sa remarquable solidité. Saint Thomas a déclaré que Dieu seul connaît d'une manière immédiate, en vertu de son essence, mais que l'intelligence humaine a besoin du concours des sens. De ce point de vue, il a critiqué, avec beaucoup de force, la théorie des idées innées, qui ne tient pas compte des limitations de notre nature, et nous attribue une sorte de connaissance absolue.

Cependant la théorie des idées innées a été reprise par les philosophes modernes. Descartes, Spinoza et Leibnitz ont soutenu que l'intelligence possède par elle-même, indépendamment des sens, les idées au moyen desquelles nous connaissons la vérité. Rappelons jusqu'à quel excès Leibnitz a poussé cette thèse. Persuadé que la monade n'a point de fenêtres, il a déclaré que toutes les idées viennent à l'âme de son propre fonds, sans qu'elle reçoive jamais rien de l'extérieur. Autant dire que l'âme est immédiatement l'Être absolu, ce que Leibnitz n'admet pas, puisqu'il considère la monade comme une créature, affectée d'une limitation originelle: la contradiction est donc installée au cœur même de sa doctrine. Il a fallu l'œuvre de Kant pour qu'une nouvelle synthèse fût accomplie. Kant a montré que la connaissance suppose à la fois les données des sens et les concepts de l'intelligence, c'est-à-dire la réceptivité de l'esprit et son activité. Pour cela, il a fait appel à la notion aristotélicienne de l'union de la forme et de la matière, en considérant les données sensibles comme la matière et les concepts comme la forme de la connaissance. Malheureusement, la doctrine de Kant s'est trouvée obscurcie par la notion contradictoire de forme *a priori* de la sensibilité, qui l'a conduit à penser que notre connaissance ne porte pas sur la réalité telle qu'elle est en elle-même. Par là, cette grande doctrine a perdu le bénéfice de la synthèse qu'elle avait essayé de faire. La théorie des idées innées a d'ailleurs réapparu, à notre époque, dans la théorie de l'intuition, si brillamment exposée par M. Bergson. En admettant une connaissance immédiate, dans laquelle se produirait la parfaite coïncidence du sujet et de l'objet, M. Bergson nous ramène à l'idée d'une connaissance absolue. Mais, encore une fois, nous ne sommes pas capables de cette connaissance absolue. Quel que soit l'infini de notre nature, nous sommes affectés d'une certaine limitation, et le réel nous est tout d'abord extérieur. Aristote avait raison: nous ne pouvons pas penser sans images.

Je suis obligé de m'en tenir à ces quelques considérations. Elles auront suffi, je l'espère, pour montrer que la philosophie grecque renferme un principe vivant, dont la philosophie ne peut pas se passer. C'est pour n'avoir pas toujours conservé ce principe que les systèmes modernes se sont trouvés, vis-à-vis des systèmes grecs, en état d'infériorité. Rien donc n'est plus utile, rien n'est plus nécessaire pour le philosophe qu'une méditation de la philosophie grecque. Par l'esprit général dont elle fut animée, par ses théories les plus essentielles, cette philosophie demeure comme une partie intégrante de la philosophie éternelle.

THE MEANING OF A JUDGEMENT

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§ 1. All logicians are agreed that 'to think' is, above all, to form judgements. But there is considerable disagreement among logicians regarding the nature of a judgement.

Since early times a judgement has been held to consist of subject and predicate, with a link between them, a link that finds its expression in the so-called copula. All judgements, like all complete sentences, are held to contain these elements; special phenomena, such as impersonal judgements, impersonal sentences, are regarded as merely apparent exceptions.

It has been somewhat unfortunate for the theory of judgements that logicians, in their analysis of a judgement, have set out from the linguistic form of the judgement, i.e. the sentence. A judgement has been taken to consist of parts, in the same way as the sentence consists of parts. The normal type of a sentence has become the normal type of a judgement.

An analysis of the nature of a judgement should start, logically, from an analysis of the logical *content* of a judgement. What is meant then by the delivering of a judgement?

If we are to consider this point without prejudice, we must consider various groups of judgements, and not confine ourselves at the outset to a certain type of judgements.

§ 2 (*a*). The examples of judgements most often given in text-books on logic are classifying and inherence judgements, such as that the square is a four-sided figure, or that negroes are black. These are, in a way, the simplest forms of judgements. It is here a 'thing', a definite real or ideal entity, that is ranged under a class-concept, or to which a quality is ascribed. And here we have clearly the 'subject' in the judgement.

The thing that is classified or characterized by a quality, can be a concept, but it need not necessarily be so. In the judgement, 'this is an Havana cigar', or, 'this is a light one', it is not about the *concept* cigar that anything is predicated, nor is it about the perception or idea of a cigar that the judgement is formed; it is the thing before us that is the subject. It need not even be mentioned by name; it can be referred to as 'this' or 'that'. The theory that all judgements are a relation between concepts is therefore impossible, even when we refer merely to a perception-judgement. Concept-judgements, i.e. judgements about conceptions, constitute but a part of our judgements.

In judgements of this kind the *predicate*, on the other hand, is a concept. When we assert, 'this is an Havana cigar', the object in question is ranged under the group-concept 'Havana'. Analogously with an inherence judgement such as, 'this cigar is a light one'. What is asserted here is that a particular quality is present in the subject, and the quality is more or less conceptually fixed.

What it involves that an object belongs to a particular class or has some particular quality, is a question of epistemology on which we need not touch in this place. Of importance for the interpretation of a judgement, on the other hand, is that, even with only these few examples before us, we can state that a judgement cannot be reduced to a mere perception or concept of a given reality. The class under which a subject is ranged, is not a reality that can be directly perceived. It is an abstract concept. By the judgement 'this is an Havana cigar', a state of things is asserted, but this state of things is not a directly given reality.

(*b*) The group of judgements that we can bring together under the heading 'functional judgements' offers greater difficulties for logical analysis. A judgement about spatial relations is already more complicated. What is the subject in such a judgement as, 'Uppsala lies to the north of Lund'? If there had been a previous mention of the position of Uppsala, Uppsala might possibly be said to be the object about which something is asserted. But if previously there had only been the question of the reciprocal positions of the Swedish university towns to one another, Uppsala is not the sole object of the thought, i.e. the subject: Lund is the subject to the same extent. If here we are to speak of a logical subject in the sense of the starting-point for the judgement, or that 'about which something is asserted', then both Uppsala and Lund are the subject, or perhaps rather the geographical position of Uppsala and Lund in relation to each other; and what is asserted—the predicate—is the north and south character.

Nor is it easy in a causal judgement to indicate a definite thing as the subject of the thought. In the judgement 'a fall in the price of sugar will result in an increase in its consumption', it is not certain that 'a fall in the price of sugar' is the starting-point for the assertion, nor 'an increase in its consumption'; but rather the relation of these phenomena to each other: it is of this relationship that we assert that it is of a causal nature.

Other functional judgements, such as Newton's law, 'the attraction of bodies is proportional to their mass, and inversely proportional to the square of the distances', remove us still farther from the traditional type of judgements with a predicate which is attached to a subject. There is no question here of any subsumption of 'the attraction of bodies' under a class-concept of a general nature, nor is an attribute attached to the attraction. By such a judgement it is asserted that there exists a regular connexion between attraction, mass, and distance. That is the 'state of things' which is asserted.

§ 3. These groups of judgements do not aim at any complete classification of various judgements, but only at exemplification. What, then, is the essential thing in these assertions, what is it that characterizes them in particular as judgements? The simplest way to make clear what we mean by a judgement is doubtless first to confine negatively the limits of the judgement from those of the idea.

An isolated perception or idea, as already pointed out by Plato in *The Sophist*, is no judgement. An idea is an image of something, and in such an image there is not necessarily any pretension to truth. The image is there, a certain, definite image. If the idea of Hyde Park Corner emerges in my consciousness, this does not imply anything problematical, no opposition can be directed against the idea as an idea, it can neither be accepted nor rejected. Only a later assertion that the idea is an adequate image of the reality may possibly be the matter of discussion, but not the idea itself or the thing represented.

The same is true of concepts. A definite intention, a determinate unit of meaning, is something undiscussable. A concept in this sense can be useful or useless, but in any case something definite is meant.

Nor does ever so close an association of ideas create a judgement. Brentano, against such interpretations (by James Stuart Mill and Spencer), has rightly emphasized that the habit of thinking two ideas successively is not itself a combining of the contents of the ideas into a unit. The fact that two ideas follow close on one another does not predicate that the object conceived has a certain status. In a judgement it is just the question of objective state of things, and not of the succession of the acts of thought.

§ 4. Ever since the days of Plato and Aristotle, logicians have seen in a judgement a synthesis, a union of subject and predicate. It seems to me beyond doubt that a synthesis of some kind or other enters into a judgement, even if the content of the judgement is not exhausted thereby. One of the few logicians who denies that a relationship, a synthesis, enters into a judgement is Brentano. He says that every judgement is an accepting or repudiating (*Anerkennen oder Verwerfen*), but this accepting or repudiating can be aimed at a simple object, and need not have a relation as basis. According to Brentano, the fundamental type for a judgement is, 'A is'. In such a judgement it is A that is admitted, nothing else (Brentano, *Psychologie vom emp. Standpunkt*, p. 276 et seq.).

Brentano's argument is not convincing. An object, be it simple or complex, cannot be 'accepted' or 'repudiated'. It has no meaning (cf. Reinach, *Zur Theorie der neg. Urtheile*, p. 217). The least that can be asserted, 'accepted', of an object is that it *exists*, that it is real. According to the usual terminology, existence is therefore the predicate. The content of the judgement, 'A is', is that A really exists; it is this relation between A and existence that is asserted, 'accepted'.

The relation that enters into a judgement has been interpreted by the classical logicians as being fundamentally of one and the same kind. So they attempted in all judgements to see a *subsumption* of the subject under the connotation of the predicate (Aristotle), or as an identifying of the contents of subject and predicate (Erdmann). It is possible, with some chance of success, to realize such a reduction of all classifying and inherence judgements to a type. But if we go beyond this kind of judgements we soon notice that such an interpretation becomes quite artificial. Newton's law expresses no subsumption or identity.

Külpe and others have characterized the relation in the judgement as a 'state of things' (*Sachverhalt*). This expression indicates in a happy way what we aim at in a judgement. By a judgement we want to assert that something has a certain status. This fact, that something exists in a certain way, embraces a variety of things. It can signify that something belongs to a certain class or has a certain quality, but it can also signify that some phenomena are in a certain relation to each other, in, for instance, a spatial, temporal, or causal relationship. The state of things asserted, can be of as many kinds as reality admits of.

From this it also follows, *inter alia*, that the division of the judgement into a subject half and a predicate half cannot be carried out in the schematic manner that the text-books on logic still persist with. The state of the things of the judgement can contain *several* relational members. Most judgements, as Windelband (*Principien der Logik*, p. 21 et seq.) has pointed out, may be said to offer 'eine mehrgliedrige Mannigfaltigkeit von Inhalten, die in verschiedenen Formen aufeinander bezogen sind'. For the logical sense of a judgement, the division of the state of things into subject and predicate is often something irrelevant (cf. v. Kries, *Logik*, i, p. 221 et seq.). The very best proof of this is afforded by the impersonal judgements. The statement 'it is raining' undoubtedly expresses a state of things; it is not an incomplete judgement, but a logically fully developed unit, and yet to a certain extent we lack a subject about which something is predicated. What is predicated is that a certain state of things exists, and in so far we have a synthesis as that the raining—a simple perception of rain would be no judgement—is connected with the consciousness of the reality of the moment, but this reality of the moment is not conceptually distinguished from rain. In the present form of the verb both the raining and its reality in the present moment are united in a simple state of things.

§ 5. If the judgement always contains a state of things, a relation of some kind, it does not follow that the content of the judgement is exhausted with this consciousness of relationship, or even that this is most characteristic of the judgement. An idea can even be the idea of a complex in which several moments are united. The idea of a blossoming fruit-tree is a consciousness of a quality in an object, and yet it is not a judgement. What, then, distinguishes the idea of a blossoming fruit-tree from the judgement 'the fruit-tree is blossoming'?

Only in the latter case is there any sense in speaking of *true* or *false*. The man who expresses the judgement 'the fruit-tree is blossoming' asserts thereby that something has a certain character, he *claims* truth for this assertion. Only later experiences may possibly show that there was some mistake and that the judgement was false.

Plato and Aristotle have well observed the relationship of the judgement to the category of truth, but have not at the same time succeeded in making clear what characterizes the judgement. Later logicians (among them the Stoics, Descartes, Spinoza, Kant) have made manifold attempts to describe what is added to the synthesis and by which the judgement becomes a judgement. Among later logicians, John Stuart Mill, Brentano, Windelband, Rickert, and others have followed up the voluntarist interpretation of the judgement that was begun by the Stoics, and have asserted that a judgement is either an accepting or a rejecting. So, according to Windelband, 'das Specifische im Urtheil ist die Bejahung oder Verneinung, das Setzen oder Verwerfen der darin gedachten Vorstellungsverbindung, welche, bloss als solche, jedesmal auch im Gestalt eines nicht beurtheilten Begriffs möglich ist'. (Beiträge zur Lehre vom negativen Urtheil', in the *Strassburger Abh. zur Phil.*, 1884, p. 182.)

This line of thought seems to me to point in the right direction. In a judgement there is an asserting (accepting) which is not to be found in any other consciousness about the things.

On the other hand, it would seem to be very doubtful whether we can contribute to making clear the characteristic nature of a judgement by ranging 'the assertion' under acts of will. If a judgement is an act of will, this act of will must be said to be of a peculiar (unique) nature, which essentially differentiates it from other acts of will. Simply to let a judgement be a volition of a state of things, affords no explanation whatever of what we mean by *asserting* that something is in a certain status.

Nor is Brentano and Windelband's characterizing of a judgement as an *alternative* attitude, as an accepting or a rejecting, an 'affirmation' or a 'negation' of the relation of a judgement, a true guide. It is surely more correct to say that *all* judgements by containing an assertion are positive, and consequently, in Windelband's terminology, 'affirm' a state of things. Keynes (*Logic*, p. 76) rightly says, 'the fundamental characteristic then of judgements is their objective reference, their *claim* to objective validity'. In that respect negative judgements imply no characteristic attitude, and even negative judgements are positive assertions that something has a status in a certain negative way: these, no less than positive judgements, lay claim to positive truth.

This 'claim' of a judgement 'to objective validity' is not explained by saying that the judgement is an accepting. Still less is the judgement an idea plus an accepting, so that in the judgement a state of things is first conceived and then asserted. In an idea there exists a more or less permanent viewing of an object or of a state of things, the object is there, is extant (*vorgestellt*) to our consciousness; opposed to this, the judgement is an action of the consciousness, the judgement has a momentary character, a judgement is, as one says, 'delivered'. When any one delivers the judgement 'the fruit-tree is blossoming', the fruit-tree is characterized by the consciousness, the synthesis consequently is not there as already existing to the consciousness. Messer, in his work *Empfindung und Denken* (p. 151), has aptly formulated the difference between the representation of an attributive connexion and the judgement's propositional assertion of a state of things, by saying that the former 'ist eine Verbindung als eine fertige bloss gemeint', whereas in the judgement 'wird sie erst hergestellt, das Verbinden selbst wird erlebt'.[1] But the synthesis is not only made, the characteristic in the judgement-synthesis is that it is made with a claim to being *valid*. The synthesis of the judgement is not only subjective, but aims at representing a real state of things. A judgement, as Kant says, raises a thought relation to a *necessary* relation.[2]

[1] Cf. Reinach, op. cit., p. 202.

[2] Cf. Husserl, *Log. Unt.*, ii, p. 445.

ENTAILMENT AND THE FUTURE OF LOGIC

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IN the early numbers of the *Principia Mathematica*, Whitehead and Russell presented, in precise symbolic form, a two-valued propositional system of logic. The authors' understanding of that system was not (as Russell has acknowledged[1]) and is not complete, due to the fact that their analyses of certain basic logical concepts were not carried far enough. Nor did the authors seem to recognize the fact that their system, even when all its concepts are completely analysed, is only one of many systems, that it is a value of a more general one, and that it involves an arbitrary and restricted use of material from a more general scheme. Once these points are acknowledged, it will be possible to indicate the nature of the future tasks of logic. Accordingly, it is the purpose of this paper (1) to define precisely certain widely used but little studied fundamental logical notions; (2) to show how the limitations contained in the *Principia Mathematica*'s presentation and analyses are to be transcended, and (3) to point the way to future logical study.

I

Most of the limitations of the *Principia Mathematica*'s work on logic is traceable to the insufficient consideration of two ideas—the meaning of entailment and the nature of the logical proposition.

Entailment in that system means 'to be contained among the alternatives of'.[2] It expresses the relation of a part to its containing whole. Every entity is always entailed by and only by those alternatives contained in it. A part always entails and only it can entail the whole of which it is a contained part.[3] To illustrate, P or Q represents the alternatives P and Q, P and not Q, not P and Q. Any one or more of these alternatives, such as P and Q, including the limiting case of no alternatives, such as P and not P, entails P or Q, and it is only these which can entail it.[4]

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[1] *Introduction to Mathematical Philosoph.*

[2] 'Relativity in Logic', pp. 546–7, *Monist*, October 1928, and the 'Nature of Systems', part 2, *Monist*, July 1929.

[3] A set of no alternatives, or contradiction, is considered to be contained in every set, and thus to entail everything.

[4] The difference between the *Principia Mathematica* and the Boole-Schröder algebra does not lie in the acceptance of different relations of entailment in the asserted propositions, but in the different uses made of the same relation. The former begins by

As the number of alternatives or disjunctively connected elements is in inverse ratio to the specificity of the meaning which the group of alternatives expresses, entailment may also be defined as the relation of 'being more specific in meaning than'. It is the relation of a more definite meaning to a less definite one. Every meaning is always entailed by and only by a more specific meaning.[1] Thus, if P or Q is true, it means that not P and not Q is false. If P and Q is true it means that not P and not Q, P and not Q, not P and Q are all false. To say that not P and not Q is false is to say less than to say that not P and not Q, P and not Q, not P and Q are all false, and the meaning of the first assertion is one of the meanings found among the latter. Thus what P or Q denies is contained in what P and Q denies, and thus what P and Q affirms contains what P or Q affirms. In other words, what was shown to be more specific, P and Q, entails the less specific P or Q.

In the first definition considered, the relation of entailment was described as holding between disjunctive elements without regard to their content; in the second it is defined as a relation of meanings considered apart from the nature of the constituents of the meaningful wholes. The first was a definition of an extensional relation; the second of an intensional one. The authors of the *Principia Mathematica* tried to ignore all intensional notions, and although it will be found that they did not succeed, we shall, for the time being, take only the first definition into consideration in describing the nature of the asserted but not analysed logical propositions to be found in that work.

Logical propositions are propositions which assert actual entailments. They are necessarily true because their contradictories are self-contradictory, since the contradictory of a logical proposition asserts, at the same time, two exclusive sets of alternatives—the antecedent together with the denial of the consequent.

The denial of an antecedent contains the alternatives excluded by that antecedent. As the alternatives of the antecedent of a logical proposition are contained in the consequent, the alterna-

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employing entailment to connect propositions, viewed externally; the latter uses it to connect classes, taken extensionally. As the assertion of the relation of classes to one another results in a proposition and not in a class, the Boole-Schröder algebra was powerless to substitute the assertion for the terms contained in it. To deal with its propositions it had to lean on a propositional logic. The *Principia Mathematica* superseded the algebra because both its terms and its assertions were propositions, and it could deal with its assertions by simply substituting them for terms already considered, without leaning on extraneous concepts.

[1] Contradiction is an excess of specificity; it is the product of all possible meanings and thus entails every meaning as a less specific part of itself.

tives contained in the denial of the antecedent together with those contained in the consequent make up an exhaustive set of alternatives. The logical propositions of the *Principia Mathematica*, accordingly, may be defined as those propositions which are convertible into the representation of an exhaustive set of alternatives.

As every alternative is contained in an exhaustive set, and as an exhaustive set can be contained only in an exhaustive set, a logical proposition is entailed by every proposition and can entail only itself. If the primitive propositions of the *Principia Mathematica* are logical propositions (which they are), it follows immediately that all the theorems are logical propositions and necessarily true. A 'deduction' is no more necessary to assure one that they are assertible in logic, than is a deduction of the primitive propositions.

Entailment has been almost universally confused with the similar but entirely different notion of implication.[1] With the above definitions of the logical proposition and entailment in mind, the nature of entailment can now be more clearly understood by drawing the necessary distinctions between it and implication. From the exhaustive set of P and Q, P and not Q, not P and Q, not P and not Q, sixteen distinct sets can be formed.[2] The set P and Q, not P and Q, not P and not Q, is what is selected when it is said that P implies Q. It is to be noted that the denial of P implies Q is equivalent with the assertion of P and not Q—i.e. with the assertion of an antecedent in conjunction with the denial of the consequent. The fact that the contradictory of a logical proposition also asserts the conjunction of the antecedent with the contradictory of the consequent is what has led to the confusion of implication with entailment. The confusion would have been avoided if it had been recognized that the antecedent of an implication is never, while the antecedent of an entailment is always, contained among the alternatives of the consequent, and that while an implication is never necessarily true an entailment always is. Only entailments are asserted in the *Principia Mathematica*[3] (or in any other logic) and if it be desired to distinguish what is said there about propositions asserted from what is said about propositions neither asserted nor assertible in logic, it will be necessary to recognize that they have dealt with the two distinct notions of implication and entailment under the common term 'implication'.

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[1] Entailment was first distinguished from implication by G. E. Moore in his paper on 'External and Internal Relations', *Arist. Soc. Proc.* 1919–20, p. 53.

[2] Cf. *Tractatus Logicus-Philosophicus*, Wittgenstein, No. 5, 101; 'Relativity in Logic', p. 545. There is an ingenious table of these selections in Mrs. Ladd-Franklin's paper in the Johns Hopkins *Studies in Logic* of 1883.

[3] p. 8, second edition.

II

The *Principia Mathematica* states logical propositions about propositions in terms of two truth-values. That a logic can assert propositions about propositions in terms of more than two truth-values was early recognized by McColl,[1] and such a plural valued logic has been systematized by C. I. Lewis.[2] The *Principia Mathematica* is a special and the most simple instance of a logic of propositions having *n* truth-values.

The two truth-values of the *Principia Mathematica* are the mutually exclusive 'truth' and 'falsity'. Russell has recognized that a two-valued logic is interested in these particular truth-values only so far as 'they divide propositions into two classes according to certain rules'.[3] Any two other exclusive and exhaustive 'truth' values should be just as good, for the purposes of a two-valued logic. If each pair of such values be acknowledged to be particularizations of what may be called *property-values*, the *Principia Mathematica* will be seen to be a special and the most familiar instance of a logic of propositions using one of the many possible values of the property-values x and y.[4] Combining the two generalizations, the *Principia Mathematica* is seen to be one of many instances of a logic of propositions having *n* property-values.

The correlation of propositions with definite truth-values is made to yield, in the *Principia Mathematica*, what are called truth-functions. These truth-functions are also said to have truth-values. Their truth-values are taken to be functions of the truth-values of the correlated propositions. The truth-values of the truth-functions are 'truth' and 'falsity'—similar in kind with the truth-values of the constituents of the truth-functions. Not only can the truth-values of the truth-functions be generalized into property-values, but these property-values need not be of the same kind as the property-values of the constituents.[5] The *Principia Mathematica* is a special and the most simple case of a logic having the *property-functions* v and w of which the truth-values of the truth-functions are particular instances. Property-functions may be different in kind from the property-values possessed by the constituents of the 'truth' functions. Combining our three generalizations, the *Principia Mathematica* is seen to be an instance of a logic of propositions having *n* property-values and *m* property-functions, the latter not being necessarily identical with the former in character.

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[1] Cf. 'Symbolic Logic and its Applications'.

[2] Cf. 'Survey of Symbolic Logic'.

[3] *Principia Mathematica*, 2nd ed., p. 660.

[4] 'Relativity in Logic', p. 541.

[5] Ibid., p. 542.

The *Principia Mathematica* asserts logical propositions about propositions. There is no necessity for the propositions of logic to deal with propositions or what is analytically derived from them. Any entities whatsoever can be dealt with, providing they are sufficiently general to allow for the substitution of the propositions of logic for them. That condition is provided by having logic deal with essences, things-in-general, meant-objects, &c.[1] The *Principia Mathematica* is a special and a simple instance of a logic which has, as the constituents of its propositions, highly generalized entities. These entities, of course, may have any one of a number of property-values, and may determine functions having any one of a number of property-functions.

The *Principia Mathematica* begins its system with a number of primitive propositions. A different set of primitives, as was there indicated, might have been selected. From those propositions, arbitrary in number and form, an arbitrary group and number of propositions are 'deduced' in a somewhat arbitrary order. The *Principia Mathematica* is one of many general systems[2] of logic, which differ from one another in their choice of premisses and conclusions.

It is a system in which theorems are derived by a method of deduction made familiar in mathematics. That method obscures the fact that all logical propositions are equivalent, that there is no first or last in logic, and that logical propositions need not be deduced from others. It necessitates making substitutions for an entity in all its occurrences in a given proposition, and makes it impossible to discover at sight what propositions are assertible in logic. Elsewhere[3] I have shown how, on the basis of nine assumptions, beginning with an exhaustive set, it is possible to derive every proposition of logic without 'deduction' and how it is possible to substitute one entity for another without having to repeat the operation in every instance where the original entity occurs. The *Principia Mathematica* has systematized a selection from an infinite number of logical propositions which could have been obtained without the use of the conventional systemic devices. Thus, it is seen that it has not only arbitrarily but also unnecessarily systematized the propositions of logic.

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[1] Ibid., p. 542.

[2] 'The Nature of Systems', part 1, *Monist*, April 1929.

[3] Cf. 'Logic of Systems', 1929, Archives of Widener Library, Harvard University.

'P implies Q' as used in the *Principia Mathematica* means that one or more of the three alternatives, P and Q, not P and Q, P and not Q is possible. A different group of alternatives selected from an exhaustive set could have been used instead to express the meaning of implication.[1] The *Principia Mathematica* employs a special and partly conventional, partly paradoxical definition of implication.

Though it was possible to vary the meaning of implication in the *Principia Mathematica* without affecting it either as a system or as a basis for mathematics, it is not possible to do the same with the relation of entailment as actually used there to connect parts and wholes.[2] For, if one were to vary the meaning of entailment one would secure either a limited meaning of the notion of 'being contained in', and thus be able to assert only part of the propositions asserted in the *Principia Mathematica*, or one would secure a peculiar relation between two sets of propositions such that in order to be able to assert the necessary consequent of one of them it would be necessary to negate one or both. And if a peculiar relation of entailment were employed, in order to be able to assert a necessary consequent, it would be necessary to operate on the terms—and that operation would be equivalent to converting a peculiar meaning of entailment into the conventional one.

It is to be remembered, however, that there are two possible definitions of entailment; it means not only 'to be contained in' but also 'to be more specific in meaning than'. Extensional logics such as the *Principia Mathematica* are concerned only with the first; intensional logics use only the second. Extensional logics construct sets of alternatives by externally connecting entities whose content has been disregarded: intensional logics deal with meanings having an internal connexion with one another.

If an entity whose meaning contains the meaning of another need not have constitutions which are contained in the constituents of that other, the notion of an intensional logic is more basic than that of an extensional one. Entities without content are not meaningless; they have just so much meaning as makes it possible to distinguish them from other and contradictory entities. It is the fact that the material of a construction and the construct have some meaning which makes it necessary for every extensional logic to have an intensional aspect. On the other hand, because an entity which is more specific in meaning than another need not necessarily have parts that are contained in that other (though the converse, we have seen, is true) in order to introduce extensional ideas into an intensional logic, it is necessary to analyse the meaningful wholes down to constituents having external relations or to ignore the meanings of the wholes and connect them by the conventional logical constants in well-understood ways. It is the fact that meaningful wholes need not have externally related parts or be externally connected with one another in the relation of part and whole that intensional logics are seen to be not necessarily extensional.

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[1] 'Relativity in Logic', p. 456.

[2] 'The Nature of Systems', part 2.

The two kinds of logic differ from one another primarily in their starting-point; one constructs, the other begins with meaningful wholes; one conjoins entities, the other begins with conjoined or consistent ones; one disjoins entities, the other begins with excluded ones, &c. Both kinds of logic meet on the proposition 'P entails P'. Both of them can assert it, for P as a meaningless object is contained in itself, and as a meaningful one contains its own meaning. Entailments involving tautologies, and those involving contradictions, can also be the same in both, but it is doubtful whether they need have any other propositions in common. In the *Principia Mathematica* only one of two different methods of approaching the logical proposition, and one of two meanings of entailment, conjunction, disjunction, &c., are taken as fundamental. It can use intensional notions on only a part of those objects which are capable of such treatment.

To summarize, the *Principia Mathematica* is a particularization of a more general system dealing with undescribed highly general entities. That general system has an unlimited number of property-values and property-functions, the latter not being necessarily identical with the former. The *Principia Mathematica* employs an arbitrary meaning of implication, arbitrary premisses, deduces an arbitrary set of conclusions, and chooses the narrower of two possible meanings of entailment.

The constituents of extensional logical propositions are highly generalized entities. They possess an undetermined number and undetermined kinds of property-values and property-functions. Extensional logic, in its most general sense, is the totality of such propositions, all on the same level and not deduced from one another. Intensional Logic, in its most general sense, is the non-systematized totality of those propositions which assert in the most abstract form the necessary relations of meanings to one another; the most abstract extensional logic is simply a concrete instance of it.

III

In the light of the foregoing the nature of the future desirable work in logic may, perhaps, be indicated as follows: Firstly, it seems desirable to develop a number of logics having three, four, five, &c., property-values. That would allow for the understanding of the interrelationship of such entities, for example, as are characterized by one or the other of the triadic properties of necessity, impossibility, and contingency. Secondly, it seems desirable to develop logics in which the property-functions differ in kind and in number from the property-values. That would allow for the understanding of the relationship of such property-values as truth and falsity to such property-functions as compatibility and incompatibility or to necessity, impossibility, and contingency. Thirdly, a complete intensional logic should be developed. That would allow for the assertion of propositions not now acknowledged, and for a possible derivation of and a detailed comparison with extensional logics. The consideration of the points previously discussed and the accomplishment of the tasks just mentioned would, finally, allow for the discovery of a panlogical transformation formula, if there is such, and for the creation of a highly generalized Logic, having all these different developments as special instances.

THE VALUE OF KANT FOR THE REALIST

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OUR answer to the question turns largely on our views as to the validity of the change of outlook implied in Kant's Copernican revolution. This topic is too wide a one for me to debate here, but it is also relevant to ask what is the value of the transcendental method for those who do not accept this revolution? This latter question must force itself on all modern realists, but it is equally important in relation to Kant's predecessors, since they also were non-idealists, not having thought of effecting the revolution. If the *Kritik der reinen Vernunft* is of no value except for idealists because the transcendental method involves a total break in philosophical thought, then one of two alternatives follows—either it is unnecessary to study Kant except for historical reasons or it is unnecessary to study his predecessors.

I do not myself think we can possibly gloss over what Professor Kemp Smith calls the 'subjectivist' side of Kant, for Kant commits himself to the view that we can only know our representations, put together by an act of synthesis, as much as he commits himself to any view.

This opinion is held by him from the beginning of the critical period to the end of his life and never definitely repudiated; all we can claim is that it is not the whole of his message. Even when he speaks as a realist, it is always a realism within idealism. This is shown by the fact that in his *Opus Postumum* where he develops this realism most freely he also stresses the part played by our real self in constituting phenomena more than he does in any other of his writings. He was enabled to maintain such a double-faced position by his distinction between the transcendental and the empirical (or phenomenal) self, which left him free to treat physical objects as an idealist relatively to the transcendental, and a realist relatively to the phenomenal self, and this seems to be the best explanation of the second edition *Refutation of Idealism*. Relatively to the phenomenal self, the self in time, physical objects are 'things outside me', relatively to the transcendental self they are representations, therefore Kant can be both a realist and an idealist according to his standpoint; and if he were asked how the same thing could really be both from one point of view an independent permanent thing and from another a mere representation, he could meet the difficulty by saying that the question was not a legitimate one because we could not possibly have any knowledge of the nature of the connexion between things-in-themselves and appearances. We could not know how they were connected, and therefore could not know that they were connected in a way which made this double standpoint impossible. But for all this Kant never goes so far as explicitly to admit that we are entitled to ascribe any of the ordinary physical properties to things existing unperceived by human beings, though he sometimes speaks *as if* this were so. His doctrine that there is a permanent in appearances, as maintained in *The First Analogy* and the second edition *Refutation of Idealism*, might be taken as implying that these spatial appearances continue to exist permanently even when not perceived, but it seems more likely that what Kant thinks as permanent is not anything actually perceived but the conditions of perception, for to suppose that anything we actually perceive existed when unperceived would have been to make objects in space independent not only of our phenomenal but also of our transcendental self, and therefore to make them things-in-themselves.[1]

But it is important to realize that, if the transcendental method as applied by Kant does mean that phenomena are in a sense made by our mind, it also stands for another line of thought which is by no means incompatible with realism. Kant means by 'transcendental proof' a proof by reference to the possibility of experience. By 'experience' he clearly means not mere feeling but knowing, and in several passages he explicitly declares experience to be synonymous with empirical knowledge or empirical judgement.[2] The proof thus consists in showing that without presupposing a certain principle (category) we could have no empirical knowledge about events in time. Such a proof is quite consistent with Kant's idealism, and it has generally been assumed that it could not be used by any one who had not accepted that idealism. This I think to be wrong for the following reason.[1] Kant argues that physical (phenomenal) objects must conform to the categories because otherwise we could not be aware of them and therefore they could not be at all, since their *esse* implies *percipi* or rather *cognosci*, but another philosopher, once he came to the conclusion that we were entitled to make some judgements about physical objects as they are, independent of our minds, could equally well use the argument that, since he had *ex hypothesi* shown these judgements to be true of objects, we must likewise accept as true of objects whatever is implied by the possibility of making the judgements. *If* realism is true some affirmative judgements about independent physical objects are justified, therefore any principles without which these judgements could have no validity or meaning must also be accepted as true. For, the realist might say—'Even though physica lobjects may exist without our knowing them, they cannot be known by us without our knowing them; but they are known by us, therefore they must conform to any conditions without which this knowledge would be an impossibility'. For it seems to me that arguments like those of Kant, based on the possibility of knowledge, can perfectly well be used by the realist to establish the view that the physcial world is a systematic unity, since otherwise it could not be an object of knowledge or opinion to us. This specially calls for emphasis at the present moment, both because it is so common to meet with the denial that epistemology can help us at all in our study of the nature of reality, and because nowadays even scientists in their philosophical view of the world are often inclined to reject altogether the conception of causality and law.

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[1] Kant's realism, so far from contradicting the view that physical objects are mere representations relatively to the transcendental self, is a logical deduction from that view, when combined with the view that our phenomenal self is also only a set of representations. For if so it can itself hardly be the cause of all our representations. If this self is conceived as only a part of the phenomenal world, to make all phenomena dependent on it would be like saying that a man built the house in which he was born; if it is rather conceived as consisting of the whole material of outer sense viewed in a fresh light, it still more obviously presupposes and is not itself the constitutive condition of the outer phenomenal world. A realism relatively to the phenomenal self is inconsistent with Kant's general doctrine only if it is assumed that external phenomena presuppose for their existence not a transcendental synthesis alone but also conscious introspection with the help of inner sense, for the phenomenal self has no being at all except as an object of introspection.

[2] e. g. *Kritik der reinen Vernunft*, B 147, 218; *Sieben kleine Aufsätze*, nr. 1.

Unfortunately, however, Kant seems to have confused the transcendental method with 'transcendental idealism', and consequently held that the 'transcendental realist' could not justify the application of the categories and must for that reason among others become an 'empirical idealist'. He was influenced mainly by the supposition that to apply the categories to real things (except in a modified sense mentioned later) was equivalent to an arrogant assertion that reality must conform to the laws governing our little minds, but in this he seems to have committed the error of confusing psychological with logical necessity, for the categories are known primarily not as laws of our thought but as laws of the objects about which we think. But he himself suggested an important line of argument for some form of realism by pointing out that we can only organize our experience by thinking it in terms of physical objects, and that we cannot either perceive or conceive a self apart from a non-self to which it is opposed. He tries to show that awareness of any events in time, an awareness which even those who deny all objectivity to the physical world must admit since they accept mental events at least, presupposes physical objects; but though he holds physical objects to be necessarily involved in any organization of our experience, he does not conclude that they are quite independent of our mind, they still remain for him only a way of organizing our experience, at least this is the view he takes whenever he is called upon to discuss their ultimate nature, though he may defend their independence as phenomena.

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[1] I am of course trying to show here that, if realism is adopted, it does not necessarily invalidate Kant's proofs, not that realism is true.

Similarly the doctrine of the synthesis may be interpreted in two different ways. It may be taken as an account of the origin of all phenomena, or it may be taken as an account of the unity of our knowledge of phenomena and so of phenomena themselves, from whatever source the latter derive that unity which is necessary for knowledge. Both lines of thought occur in Kant, but the second will meet with more sympathy nowadays. The first is in fact inconsistent with Kant's own principles since, if the synthesis is the ground of the existence of all phenomena, it cannot be itself a phenomenon and we therefore cannot know anything about it, even that it is a synthesis or that it is exercised by the understanding. But even if we ignore the question of their origin (as we indeed ought to on critical principles), we can still ask what phenomena are like as they stand and what our consciousness of them involves. There are two distinguishable lines of thought on which the idealism of Kant depends. It is based on the argument that objects must conform to our concepts because they owe their existence to the human mind, and it is also based on the argument that as they stand they are inseparable from the experience and thought of them by the human mind. Even this much idealism may be unsound, but this need not be regarded as vitiating the whole of Kant's philosophy, for even the realist must admit that he can only think of physical objects as independent things by thinking of them as they exist, or as if they existed for an experiencing and thinking mind. Just as idealists like Kant have found themselves driven to admit a realism within idealism, it may be that realists will find themselves driven to admit an idealism within realism. Further, from any point of view, we must in knowledge be regarded as carrying out some process of synthesis or unification, though that need not necessarily involve us in constructing or altering the object known, and Kant's account of this synthesis remains valuable whatever its relation to objects. In particular Kant made the most important psychological discovery that perception always involves conception.

Finally we must not ignore the fact that, although Kant excluded all definite knowledge of the real world, he did not exclude all thought of it and retained many of the metaphysical conceptions of his predecessors as of regulative value, including even the *ens realissimum.* He even held that the idea of God, quite apart from practical reason, was of the greatest theoretical value for the scientist, while adding the proviso that it must be regarded as only a regulative not a constitutive principle. The difficulty is to reconcile his views on these points with his insistence that the categories have no application to reality. That he still quite openly applies the category of cause or ground[1] to reality, as he does, e. g., when he speaks of the transcendental self as exercising a free causality,[2] can hardly be a mere oversight since it is central to his solution of the problem of freedom, and he in fact cannot possibly avoid some application of the categories to things-in-themselves. For to say that there are things-in-themselves at all is to say that they are subject to one category, namely, reality or existence, and to say that the world we know is an appearance of things-in-themselves is to say that it is based on them as ground (i. e. the logical category of which phenomenal causality is the schema). If the things-in-themselves are not part-cause or ground of the phenomenal world, it is meaningless to say that the latter is the appearance to us of the former. But Kant by his distinction between knowing and thinking[3] suggests a way of solving the difficulty. What he seems to have meant when applying the category of cause or ground to reality is that we must think of God or the things-in-themselves or the transcendental self as though they had some relation to appearances or free acts which is like in kind to that which causes and effects in the phenomenal world have to each other. We have no definite conception of their relation, we cannot make it a matter of knowledge, only of belief, that they have such a relation at all, but we cannot help thinking them and have no other way in which we could think them, no other categories which we could employ. This is quite consistent with holding, as Kant does, (*a*) that the categories as schematized could not be applied to reality because the schema always involves time, (*b*) that the categories as unschematized yield no definite conceptions and nothing that could properly be called knowledge, (*c*) that the categories could not be proved to hold anything but phenomena. Whether it is inconsistent with his repeated statement[1] that the categories have no meaning whatever as applied to reality is more doubtful, for how could the application of totally meaningless words be of any help to us at all, but if we do not press the literal sense of his language too far and look rather at the general view he really attained in practice[2] we find indeed a great advance on his predecessors but not a total revolution. The circumstances of the time made Kant lay the greater stress on the negative side of his philosophy, for it was a time when even leading thinkers were apt to introduce the conception of God to provide a cheap solution of every intellectual difficulty and in general to treat it like an ordinary concept of science, and Kant undoubtedly went too far in his rigid distinction between the phenomenal and the noumenal spheres, and his treatment of the former as something that was not even a subordinate part of reality; but after all can any reasonable philosopher say so much more than Kant did in his more positive moments when speaking of what is totally beyond the range of human experience? Even the 'dogmatists' who preceded Kant did not say that, e. g., God's causality was just the same in kind as ours, or that we could form the definite conception of it that we can of the causality of physics. Even here the break is far from being absolute, though it does remain true to say that the conception of 'regulative ideas' and of religion as grounded on our sense of values rather than on metaphysical arguments, and as an ideal rather than knowledge the same in type as that of science, constitutes a very fruitful line of advance.

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[1] 'Ground' is the logical category of which necessary succession in time (causality as applied to phenomena) is the schema, but Kant more frequently uses the term 'cause' or 'causality' than the term 'ground' when applying the category to reality.

[2] e. g. *Kritik der reinen Vernunft*, B 566 ff.

[3] Ibid. B xxvi–xxx, 706–7; 724–5.

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[1] e.g. B 308, 707, 724.

[2] Taking into account not only the *Kritik der reinen Vernunft* but also his later works.

THE VALUE OF ETHICAL AND POLITICAL PHILOSOPHY AS GUIDES IN PRACTICE

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I. LA philosophie, depuis qu'elle s'est constituée en discipline autonome, a toujours eu l'ambition, en construisant un système d'idées qu'elle se propose d'ériger en principes, de fournir non seulement une explication des faits les plus généraux, mais un moyen d'apprécier les actions humaines: tout système philosophique implique une table des valeurs et un critérium moral, guide de la pratique tant sociale qu'individuelle.

Ambition excessive? Effort inutile? Ceux qui le prétendent semblent pouvoir se diviser en deux catégories: les uns ont surtout confiance dans *l'instinct*, les autres dans la *science positive*: les suggestions du premier, les inductions de la seconde tendant par des chemins différents à rendre superflues, dans l'ordre de la pratique, les spéculations du philosophe.

II. L'instinct, entendu au sens large du mot, fait antithèse à la réflexion. Réaction automatique de l'organisme en réponse aux excitations du dehors ou effort de celui-ci pour donner satisfaction aux besoins qu'il ressent, l'instinct suppose, si compliqués que puissent être les mécanismes qu'il ordonne, aussi peu que possible de conscience. On réduit la part de la réflexion, on tend à la considérer comme une dépravation dangereuse lorsqu'on assimile la conscience morale à un instinct divin, à un sens moral, et aussi lorsqu'on réserve à la pure intuition le soin d'éclairer la conduite. Ce n'est pas seulement aux individus, c'est aux sociétés qu'on a prêté de pareilles facultés. Il y aurait une sorte d'inconscient collectif qui serait leur véritable guide, leur dictant les sanctions qu'elles doivent appliquer pour ramener les individus à l'ordre qui est nécessaire à la vie du groupe.

III. Le conformisme pratique ainsi obtenu on l'a souvent expliqué en observant que les individus qui composent une société possèdent des instincts convergents par cela seul que leurs organismes sont apparentés: le fondement de l'ordre social serait donc physique en dernière analyse. La race, mère des instincts, expliquerait et commanderait tout. Tel est bien le postulat des théories 'racistes', dont beaucoup de nationalismes s'inspirent encore à l'heure actuelle.

A vrai dire, la diversité des éléments ethniques que la plupart des nations rassemblent a conduit à dépasser le sens physique et précis de la notion de race. Il est clair au surplus qu'une société ne saurait être en tous points assimilée à un organisme: ses éléments constituants, par cela seul qu'ils sont distants les uns des autres, doivent être unis par des représentations communicables. Ainsi les réactions par lesquelles une société défend sa vie sont amenées à se formuler. Un ensemble de représentations se constitue pour commander les actions des individus. Ce qui revient à dire qu'à l'instinct se superpose la tradition.

Les traditionnalistes réduiront du moins autant que possible la part de la réflexion personnelle. Ils diront qu'il convient, pour guider l'action, de se fier aux précédents, d'autant plus respectables qu'ils se perdent dans la nuit des temps. A défaut des instincts proprement dits, ils donneront la préférence aux sentiments irréfléchis transmis de génération en génération. Et si une coordination des idées apparaît comme indispensable, ils en confieront le soin aux religions, qui ordonnent en effet au double sens du mot: elles imposent en même temps qu'elles organisent. Elles s'adressent au sentiment autant et plus qu'à l'intelligence. Elles appuient les consignes par des dogmes qui sont eux-mêmes des consignes.

IV. L'unanimité des idées, qui amène les individus à se comporter dans la pratique sociale à peu près comme s'ils étaient mus par un instinct unique, est difficile à maintenir, en dépit des prestiges et des puissances d'intimidation variées que les religions mettent à la disposition des sociétés. Les transformations que celles-ci subissent dans leur structure, les conflits de groupes, tant intérieurs qu'extérieurs, les contacts de civilisations diverses posent des problèmes auxquels il n'est pas toujours facile de trouver de solution toute faite. 'L'âge de la discussion' succède à 'l'âge de la coutume'. La réflexion méthodique apparaît à la fois comme possible et comme nécessaire. Des philosophies peuvent reconduire à la croyance. Mais toute philosophie commence par l'incroyance. Le philosophe est celui qui remet tout en question, ne s'inclinant pas plus devant les traditions même consacrées que devant les sentiments nationaux ou les instincts de races. L'esprit critique est le père des systèmes philosophiques qui s'efforcent de faire adopter, en s'adressant à la seule raison des hommes quels qu'ils soient, une représentation intelligible du monde à laquelle se rattacherait une hiérarchie des valeurs. Toute construction de ce genre supposant, quels que puissent être les éléments qu'elle emprunte au milieu social, un effort de réflexion personnelle, la philosophie est l'individuel tendant à l'universel.

V. Que de pareilles systématisations puissent guider la pratique et produire des effets sociaux considérables, diverses expériences, dans les temps modernes, le prouvent surabondamment. Qu'on songe seulement aux répercussions de la philosophie du XVIIIe siècle aboutissant à la *Déclaration des Droits de l'Homme*, ou à ce mélange de didactique hégélienne et de matérialisme qui forme le soubassement du *Manifeste communiste.* Il est hors de doute que les idées ainsi formulées ont servi elles aussi à 'rallier' et 'régler' les activités de milliers, de millions d'hommes. Que ces idées aient créé la force des mouvements démocratique et socialiste, nous ne le soutenons nullement. Nous sommes persuadés tout au contraire que cette force s'explique par des transformations profondes dans la structure des sociétés et par les aspirations qu'insinuent au cœur des masses leurs conditions de vie. Mais un moment vient où pour coordonner les actes, pour orienter les sentiments, les propagandistes eux-mêmes ont besoin d'un ensemble d'idées qui se tiennent. Une philosophie leur rend ce service. Elle met en forme les principes qui servent de centre de ralliement aux instincts, aux traditions, aux aspirations confuses: la philosophie fournit du moins des drapeaux à la foule.

VI. Mais, s'ils paraissent incontestablement utiles à la propagande, de pareils systèmes peuvent-ils être tenus pour démontrés? Si on les soumet à un examen critique, n'aperçoit-on pas assez vite que leur rôle est surtout d'appuyer des préférences; et qu'on ne saurait suspendre leurs conclusions à une chaîne faite exclusivement de vérités objectives? Tout système, peut-être, est logé à cette même enseigne, puisque tout système suppose un jugement d'ensemble sur la totalité du donné, tant connu scientifiquement qu'inconnu. D'où la diversité des philosophies, qui demeurent en présence et comme affrontées. D'où l'incertitude de beaucoup d'esprits, qui se demandent si la spéculation philosophique ne reste pas en effet quelque chose de personnel. On voudrait plus et mieux. On voudrait de l'universel démontrable. Or, il semble qu'une puissance en fournisse, et accumule, et même organise des vérités vérifiables, en ne faisant appel qu'à la seule intelligence: celle des sciences positives. Elles n'ont pas seulement, par leurs applications, changé la face de la terre, bouleversé les conditions matérielles de la vie. Elles ont imprimé leur marque sur l'esprit humain lui-même; il lui est désormais impossible de faire abstraction du stock chaque jour grossi qu'elle tient à sa disposition, stock de 'lois', qui sont à la fois des modèles et des avertissements. Par cette voie on est délivré de l'arbitraire. Et les esprits les plus critiques trouvent, sans rien abdiquer de leurs prétentions, des terrains d'entente de plus en plus larges. *In hoc signo vinces*. . . . Pourquoi ne pas appliquer au règne social les méthodes qui ont si bien réussi appliquées à la nature? Ainsi s'explique l'ambition des disciples scientistes d'Auguste Comte et leur effort pour constituer, en dehors de toute spéculation philosophique, des 'sciences morales et politiques' qui serviraient de guide à la pratique, tant individuelle que sociale.

VII. La sociologie ainsi conçue, s'appliquant à l'étude objective des mœurs, remplacera-t-elle la philosophie politique et morale? Deviendra-t-elle un guide pour la pratique?

Pas de question à laquelle il soit plus difficile de répondre pour l'instant. Et cela en raison même de l'attitude scientifique que veulent prendre les sociologues. S'ils s'interdisent toute spéculation portant sur la totalité, s'ils procèdent en purs savants, ils accumulent peu à peu et ordonnent progressivement des vérités démontrables. Mais tant que la tour du phare n'est pas achevée, qui peut dire jusqu'où portera sa lumière? Ainsi le chercheur interrogé par le moraliste serait en droit de demander qu'on lui fît crédit et d'ajourner sa réponse.

VIII. En tout état de cause la science positive des mœurs, de leurs transformations, de ses causes et de ses conséquences est trop peu avancée pour qu'on puisse juger expérimentalement de l'effet que ses conclusions produiraient sur les consciences. Toutefois de quelques études objectives qui ont été menées — sur le suicide ou sur la responsabilité, sur la famille ou sur la profession — il est permis de dégager des tendances: et l'on peut présumer, en les confrontant, à quelles conditions et entre quelles limites la sociologie, même si elle ne devait pas être suffisante, serait utile à la direction de la conduite.

IX. La science des mœurs ne crée pas la vie morale, cela va de soi. Mais qui a jamais eu cette prétention? On doit partir ici d'une donnée, d'une série de faits à observer, parmi lesquels nous retrouverions instincts, traditions, aspirations plus ou moins confuses. Le sociologue s'attache à les décrire, à les classer, à les expliquer. Peut-il les apprécier? Si ces forces entrent en lutte, peut-il choisir entre elles? L'étude comparative des règles classées comme morales lui permet peut-être de discerner à quoi elles tendent, et quelles sont non seulement leurs origines, mais leurs fonctions sociales.

X. Étant donné son point de départ et sa méthode, observant les mœurs du dehors dans leurs rapports avec les milieux et les moments, le sociologue, a-t-on dit, ne peut guère aboutir en matière morale qu'à une apologie de la société, à une 'sociocratie': le thème en serait, pour reprendre le mot où Rousseau résume la pensée des 'fauteurs de despotisme': 'Obéissez aux puissances', et elle impliquerait une condamnation de toutes les formes d'individualisme qu'a vu s'épanouir la civilisation moderne occidentale.

Il y aurait ici bien des distinctions à formuler. Que la plupart des sociologues soient portés à voir dans les règles morales, même celles qui concernent les devoirs de l'individu envers lui-même, des boucliers pour la société, des moyens de maintenir sa cohésion, d'entretenir sa vie, cela n'est pas douteux, mais la vie des sociétés peut elle-même revêtir plus d'une forme. Cette volonté collective de vivre—dont nous sentons la pression à travers les règles morales—n'est pas seulement une volonté de puissance matérielle et de durée temporelle. Elle implique la sauvegarde de certaines valeurs spirituelles, condition de cette communion des esprits sans laquelle il n'est pas de groupement qui tienne. Et il arrive—lorsque certaines conditions historiques sont réunies—qu'au premier plan de ces valeurs passe l'idée du respect qui est dû aux personnes humaines, le libre développement de celles-ci apparaissant aux sociétés elles-mêmes comme une chose non seulement tolérable, mais souhaitable entre toutes.

XI. Plusieurs théories sociologiques contemporaines—qu'elles opposent la Gesellschaft à la Gemeinschaft, le régime industriel au régime militaire, le règne de la mode à celui de la coutume, la solidarité mécanique à la solidarité organique—ont exprimé ce fait chacune à leur manière: preuve suffisante que la sociologie n'est nullement condamnée à rester une 'sociologie de l'ordre' anti-individualiste. Au contraire, en expliquant pourquoi il devient et possible et nécessaire que le culte de la personne humaine constitue un centre idéal pour les institutions sociales, la sociologie ne justifie pas seulement à sa manière les aspirations démocratiques: elle tend une main à la philosophie critique, laquelle ne peut pas ne pas accorder un prix particulier au libre développement de l'esprit.

XII. Ne serait-ce pas alors à cette philosophie, non à la sociologie, que reviendrait le dernier mot, lorsqu'il s'agit de poser la valeur suprême, en fonction de laquelle s'ordonnent toutes les autres? Le dernier mot, celui qui devrait répondre au doute hyperbolique en matière de morale, et emporter l'adhésion d'un esprit qui se veut détacher du milieu comme du moment, il est sans doute difficile de le demander à la sociologie proprement dite: puisqu'elle n'est nullement prête à nous donner cette connaissance de la totalité que supposerait la démonstration de la valeur suprême. La philosophie aurait plus de titres à essayer de nous fournir cette démonstration, elle qui se donne pour mission de porter un jugement sur la totalité des choses et leur rapport avec l'esprit.

Resterait à savoir si l'on peut fournir en ces matières une démonstration véritable, et s'il n'y faut pas toujours faire intervenir une option. Nous ne connaissons pas de système qui nous 'démontre' que la libre vie de l'esprit est préférable à tout. Mais une philosophie peut fort bien, tablant sur des puissances et des tendances que la réflexion découvre en nous-mêmes, nous fournir des raisons d'opter pour l'esprit, de parier pour lui.

XIII. Ces puissances et ces tendances sont-elles du moins l'expression de la nature humaine éternelle, ou le produit d'une évolution historique? Dans la seconde hypothèse, la sociologie reprendrait un rôle de premier plan, puisqu'elle contribuerait à expliquer la formation progressive du donné sur lequel table la réflexion philosophique.

Entre sociologues et philosophes, ici, le dialogue peut continuer longtemps. L'Histoire dit à la Raison: 'je te construis.' La Raison répond à l'Histoire: 'tu me supposes.' En fait, quelques effets de synthèse que l'on puisse attribuer à la vie en société et à son organisation, la formation de l'esprit implique chez les éléments que la société rapproche un minimum d'aptitudes, un ensemble de virtualités: suffirait-il pour faire jaillir une idée d'entrechoquer des pierres? Inversement ces puissances ne passent à l'acte, ces tendances ne se déterminent que sous l'action d'un ensemble de faits historiques. Et c'est pourquoi il n'est jamais sûr que la Raison qu'invoquent les philosophes pour hiérarchiser les valeurs soit une forme éternelle: pour une part au moins elle pourrait être un produit de la vie en société. La lumière qu'elle nous fournit ne serait plus alors celle de l'étoile qui brille au ciel, mais celle de la colonne de feu qui marche devant le peuple, et qu'en réalité le peuple pousse devant lui en marchant.

Mais ceci serait-il, en tout cas, de nature à diminuer l'autorité de l'esprit, à déprécier les motifs que nous pouvons avoir d'opter pour ses consignes? Nous ne le pensons pas.

LA THÉORIE DES QUANTA ET LE PRINCIPE DE CAUSALITÉ

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APRÈS la théorie de la relativité c'est la théorie des quanta qui attire l'attention des philosophes par ses conséquences qui semblent menacer les principes fondamentaux de la science de nature. Tandis que la première bouleversait nos conceptions de l'espace et du temps et nous montrait le rapport de la matière et de l'énergie dans son vrai jour, la seconde rejette le principe de causalité, le principe du déterminisme universel et essaie de résoudre le problème de continuité ou discontinuité d'une manière jusqu'alors insoupçonnée. D'après la théorie de Niels Bohr ('Komplementaritätstheorie') [1] le point de vue corpusculaire et le point de vue ondulatoire sont tous les deux également admissibles dans la description des phénomènes physiques, et aucun d'eux n'est plus vrai que l'autre. Mais que signifie cette réponse? D'après le point de vue corpusculaire le monde se compose d'une certaine quantité d'êtres séparés (électrons, protons, photons, peu importe d'ailleurs comment on les nomme), tandis que d'après le point de vue ondulatoire le monde physique doit être regardé comme un seul et même être, 'un champ', comme l'on dit maintenant, pour ne pas prononcer le mot éther, un champ éternellement ondulant, sans cesse flottant, où les corpuscules ne forment que des centres d'énergie d'un faisceau d'ondes ('Wellenpaket'). C'est le vieux problème du pluralisme et du monisme, en vain débattu par les philosophes pendant les dizaines des siècles, qui en même temps que le problème de continuité et de discontinuité trouve inopinément une solution physique, solution — d'après l'avis des physiciens — décisive et irrévocable. Ce qui nous étonne, c'est non seulement qu'une antinomie, qui semblait outrepasser les limites de la connaissance se soit trouvée susceptible d'être résolue, mais c'est aussi qu'on l'ait résolue d'une telle manière. De deux thèses contradictoires toutes les deux sont dites vraies, leur contradiction n'est qu'apparente et en réalité aucune d'elles appliquée aux faits ne se laisse poursuivre jusqu'au bout sans faire appel à l'autre. Étrange solution! Mais non moins étrange est la négation du principe du déterminisme, qui servait de base à tout raisonnement des faits;

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[1] Niels Bohr, 'Das Quantenpostulat und die neuere Entwicklung der Atomistik', *Naturwissenschaften*, 1928, p. 245; en anglais *Nature*, 1928, p. 580.

non moins étrange est-ce, que cette négation sort du fond des sciences exactes, du fond de la mécanique, qui était presque synonyme du déterminisme parce que c'est ici que ce principe avait sa source et son origine.

Ces conséquences sont-elles vraiment décisives et irrévocables? Regardons les choses de plus près. Dans l'évolution de la théorie des quanta on peut distinguer deux périodes, l'une de 1900 à 1925 et l'autre à peu près de 1925 jusqu'à présent. Ce qui nous interesse le plus, c'est cette dernière période inaugurée d'une part par les travaux du prince de Broglie et de Schrödinger ('mécanique ondulatoire') d'autre part par ceux de Heisenberg, Born et Jordan ('mécanique des matrices'). Certes, les premières attaques contre le principe du déterminisme se sont montrées déjà dans la première période. Déjà Einstein,[1] en voulant expliquer pourquoi les électrons dans le modèle de l'atome créé par Bohr, sautent d'un orbite à l'autre et provoquent ainsi le rayonnement, a trouvé que la formule de Bohr, ainsi que celle de Planck et une autre encore se laissent déduire des lois statistiques d'une manière assez simple, si l'on admet deux sources, du rayonnement, un rayonnement spontané sans aucune cause extérieure et l'autre (sous forme d'émission ou absorption) provoqué par l'influence du champ ambiant. Il faut avouer, qu'Einstein lui-même regarde comme un côté faible de sa théorie ce fait, qu'elle ne laisse entrevoir aucune course de radiation au premier cas, mais néanmoins il ne doute point de la justesse de sa déduction.

Quelques années plus tard le savant allemand Exner [2] a émis l'opinion que le principe de causalité manque tout à fait d'évidence et que peut-être toutes les lois de la nature sont statistiques. En 1924 apparut là thèse de Bohr, Cramers et Slater,[3] reconnue plus tard comme fausse, mais qui mérite d'être notée, parce qu'elle essayait pour la première fois de réaliser la pensée d'Exner que toutes les lois physiques ont un caractère statistique et surtout la loi de la conservation de l'énergie. La théorie violait le principe de causalité ainsi que le principe de la conservation de l'énergie, mais elle est devenue caduque surtout sous l'influence du phénomène de Compton, dont l'explication nous porte à croire que le principe de la conservation de l'énergie est valable même pour le microcosme.

Mais le coup décisif contre le principe de causalité fut porté par

[1] Einstein, 'Zur Quantentheorie der Strahlung', *Physikalische Zeitschrift*, xviii, 1917.

[2] Exner, *Vorlesungen über die physikalischen Grundlagen der Naturwissenschaft*, 1919.

[3] *Philosophical Magazine*, 1924.

Heisenberg en 1927. Dans son travail: *Über den auschaulichen Tuhalt der quantentheoretischen Kinematik und Mechanik* il a établi la célèbre formule, d'où il s'ensuit, que le principe de causalité est invérifiable, non à cause de l'inexactitude technique de nos moyens de mesure, mais invérifiable par principe, et par là même sans aucune valeur scientifique. La formule $\Delta q \; \Delta p = h$ (h = constante universelle, q = coordonnée de l'espace, p = impulsion) et les formules analogues pour l'énergie et le temps nous indiquent, que la valeur de l'impulsion ou de l'énergie devient d'autant plus inexacte, que la coordonnée de l'espace ou du temps est mesurée plus exactement, et inversement, si les mesures sont faites simultanément. La détermination du facteur extensif entraîne l'indétermination complète du facteur dynamique. Dans la formule de la loi de causalité 'chaque état présent déterminé entraîne un seul état déterminé de l'avenir', c'est l'antécédent qui est faux. L'état présent d'un système n'est nullement déterminé, ou au moins sa détermination est invérifiable en principe; supposer un monde réel qui se cache sous les données mesurables, où le principe puisse conserver sa valeur, c'est une besogne 'oiseuse et vide de sens'.

Les autres adhérents de la théorie s'expriment à peu de chose près de la même façon. Le principe ne se laisse vérifier par aucune expérience imaginable. Et état des choses entraîne encore une autre conséquence: l'impossibilité absolue de vérifier la théorie corpusculaire de la matière. Ce côté de la théorie fut fortement accentué par Niels Bohr dans sa théorie de la 'complémentarité' de la physique ondulatoire et de la physique corpusculaire, que nous avons déjà mentionné. Les partisans de la théorie insistent sur ce point, qu'on ne peut pas accepter la théorie partiellement en rejetant quelques conséquences. Il faut ou bien admettre tout en bloc, ou rejeter tout en bloc.

Soit! Mais qui nous garantira que l'état de chose créé à peine depuis quelques années est un état définitif? L'histoire de chaque science c'est l'histoire des fautes, des méprises, des corrections sans fin. Tout n'est pas encore éclairci, il reste encore beaucoup de détails qui demandent une explication; ne provoqueront-ils un nouveau bouleversement de la théorie? Mais les objections plus graves sont à faire. Le principe: 'n'est réel pour le physicien que ce qui se laisse mesurer' exige quelques restrictions. Même en laissant subsister le principe intact, on peut se demander, s'il est bien appliqué ici. S'agit-il ici d'introduire des réalités nouvelles imperceptibles pour nos sens? Mais non! On recherche seulement des liaisons entre les faits, qui nous rendent compte des liaisons constatées! La détermination de la nature est-elle identique avec une précision possible de nos moyens de mesurer? On nous répond, que cette détermination en dehors de nos mesures est quelque chose d'absolument invérifiable. Mais la conservation de l'énergie ne se laisse constater non plus; si l'on accepte cette conservation c'est surtout grâce au calcul des matrices! Le principe de Heisenberg ne nous permet pas de déterminer avec précision le facteur énergetique en même temps que le facteur extensif! Ne s'ensuit-il pas de ce principe que la constance de l'énergie ne peut être jamais vérifiée? Et si l'on accepte, n'est-ce-à-dire, que l'on accepte quelque chose de bien déterminé en réalité, qui ne se laisse absolument déterminer par expérience?

Mais encore une autre objection se laisse souvent entendre. L'existence des lois statistiques n'exclut pas l'existence des lois dynamiques, mais au contraire la présuppose. Il y a quelque chose de juste dans cette objection. Certes, on peut appliquer le calcul des probabilités en ne s'appuyant que sur l'observation qu'un effet se produit plus souvent qu'un autre. Mais n'est-on pas autorisé à se demander pourquoi un effet apparaît plus souvent qu'un autre? Faut-il nous déshabituer d'y chercher la raison suffisante?

La nouvelle théorie, en rejetant le principe de causalité, n'affirme pas l'existence d'un chaos absolu, au contraire elle admet un ordre, puisque le désordre d'après elle n'existe qu'au microcosme et même ici il est entravé par les lois statistiques. N'est-ce pas un peu énigmatique? Et la conservation de l'énergie malgré ce désordre n'est-ce pas une énigme nouvelle? Le devoir de chaque théorie scientifique, même la plus positive, est d'élucider les obscurités, d'écarter les énigmes. Or, je ne vois rien de mieux à cet effet que le vieux principe de causalité.

L'indéterminisme en psychologie pourrait-il bénéficier de ce nouveau indéterminisme physique? Je ne le crois pas. La formule de Heisenberg ne se rattache qu'aux faits physiques. Il faudrait accepter quelques suppositions sur le rapport des faits physiques et des faits psychiques, suppositions probablement très discutables, pour qu'on puisse mettre cette formule à profit des faits psychiques. Cicéron, dans son livre 'De fato' nous raconte, que les atomistes voulaient défendre le libre arbitre par un 'clinamen' des atomes; mais il trouve très justement qu'une telle défense par des moyens tellement invraisemblables ne peut qu'affaiblir notre croyance au libre arbitre.

FORMALISME ET VALEURS LOGIQUES

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LES récents progrès réalisés par le formalisme logique ont beaucoup contribué à séparer nettement la Logique de la Psychologie; mais peut-être ont-ils aussi contribué à rendre moins apparent le caractère essentiel qui fait cette distinction. Il est certain qu'il est impossible de tirer les principes logiques de la manière dont les hommes raisonnent, soit par une analyse du cours naturel de la pensée, soit en utilisant la connaissance de celui-ci pour une technique de l'assentiment. La Logique est plus ancienne que la Psychologie; elle est rigoureuse, tandis que les 'lois' psychologiques sont fort lâches; et quant à la technique de la persuasion, cet art existe bien jusqu'à un certain point: mais, hélas, ses moyens les plus efficaces ne resemblent guère à des démonstrations.

Des raisons analogues ne défendent pas moins de suspendre la Logique à la Sociologie: ce qu'expriment les règles logiques est bien sanctionné dans une certaine mesure par la Société, telle qu'elle existe en fait; mais elle sanctionne aussi des erreurs et des sophismes. Ce qu'elles visent est la communauté idéale de pensée où s'effacent les différences individuelles, non l'unité organique qui résulte de la division du travail social.

D'autre part le formalisme, en tant que système de notations à contenu variable et indéterminé, s'oppose assurément à la pensée concrète. Mais caractérise-t-il la Logique? En ce qui concerne la prétendue Logique formelle de l' École, Dr. F. C. S. Schiller paraît bien avoir montré, point par point, qu'elle était pleine de données étrangères. En ce qui concerne la Logistique, Couturat lui-même reconnaissait qu'elle n'est pas seulement un formalisme, car elle enveloppe des principes qui ne peuvent s'exprimer par de simples notations (par exemple le droit de substituer des constantes aux variables). D'autre part, si nous l'imaginons construite d'une manière entièrement décisoire, comme un simple jeu d'écritures, elle ne recouvrirait pas tout le domaine de ce qu'on nomme universellement 'logique'; et même, ce qui est capital, elle n'appartiendrait à ce domaine que par le *sens* qu'on attribuerait aux symboles. Or la notion de sens déborde évidemment la forme.—Enfin le formalisme et la possibilité d'opérer sur des symboles sans savoir ce qu'ils signifient peuvent se rencontrer ailleurs qu'en

Logique ou en Mathématiques, par exemple en esthétique, dans la notation des rapports entre les sons musicaux et dans celle des lois de l'harmonie. Transposer est une opération d'algorithme que la surdité tonale la plus complète n'empêcherait pas d'effectuer correctement.

Ce *sens* pourrait être déterminé, dit-on, par les lois des objets sur lesquels on raisonne. Mais comment l'entendre? Il peut s'agir, sous ce nom, des objets que considèrent les différentes sciences: c'est ainsi qu'on juge 'logique' de négliger dans un calcul les décimales qui dépasseraient la précision des données. Mais alors la logique n'étant plus que la résultante de lois numériques, geométriques, physiques, sociologiques, etc., elle disparaîtrait en tant que discipline autonome. — Ou bien ce seraient les lois de tout objet de pensée en général, sans réferénce à aucune donneé d'expérience. Cette conception est admise par plusieurs écoles contemporaines. Mais elle est loin d'être satisfaisante. Ainsi qu'on l'a fait remarquer depuis longtemps, la formule $a = a$ est contradictoire en tant qu'elle exprimerait une nature: ou le second a est différent du premier, et la formule est fausse; ou il ne fait qu'un avec lui, et il n'y a plus rapport entre deux a. — De même, $a>b$ devrait signifier qu'un objet a rend nécessaire un autre objet b, qu'il en est la raison suffisante. Mais les consécutions expérientielles mises à part, un objet ne peut être la raison suffisante que de lui-même. Si l'effet diffère en quoi que ce soit de la cause (même au sens purement logique de ces mots) ce en quoi il diffère *n'est pas* effet de cette cause. Ainsi dans des objets de pensée considérés comme indépendants de l'acte par lequel quelqu'un les pense, ni le principe d'identité, ni l'idée d'implication n'ont une place intelligible. On en dirait autant de $(a^1)^1 = a$, $a^2 = a$, etc., et de tout ce qui en dérive.

Mais si nous acceptons de considérer toutes les formules de logique formelle ou de logistique comme l'énoncé de *valeurs* ou d'*obligations logiques*, tout s'éclaire et s'ordonne pour ainsi dire de soi-même.

Le sens de la formule $a>b$ (sens que personne ne conteste, même si l'on n'en fait pas l'essentiel) c'est qu'un esprit qui pense est tenu, s'il admet a, d'admettre b. Celui qui le refuse *a tort*; il est d'intelligence faible ou de mauvaise foi. Au minimum, il perd la partie, au jeu dans lequel $a>b$ est, soit un principe, soit une conséquence démontrée. Formellement, on sait que $a>b$ peut se définir par $a^1 \smile b$: si l'on affirme a, on n'a pas le droit de nier b; si l'on nie b, on n'a pas le droit d'affirmer a: *il faut choisir*. Une pareille alternative n'a pas moins que l'implication proprement dite un caractère d'obligation.

Mais $a > b$, ainsi entendu, est aussi satisfait pour $a^1 b$. D'où le paradoxe du faux qui implique tout. De notre point de vue, il revient à dire que celui qui a affirmé une proposition fausse *n'a le droit* de rien refuser au nom de cette proposition: ce qui est bien naturel, puisque elle est fausse. De même toute proposition, vraie ou fausse, implique le vrai, en ce sens que toute assertion (actuelle ou possible) suppose qu'*il y a* des propositions qu'on doit accepter; donc en affirmant quoi que ce soit, même une proposition fausse, on affirme qu'il y a du vrai; et par conséquent, si une proposition quelconque p est vraie, on s'engage à la faire sienne. Rien que de conséquent et d'intelligible en cela. Et du même coup on évite d'affirmer (ce qui est l'aspect choquant de la formule) qu'on pourra toujours déduire une proposition vraie donnée de n'importe quelle proposition fausse, qui peut n'avoir aucun rapport avec elle. Il faut pour cette implication démonstrative, une condition de plus, la présence d'éléments communs entre les deux, ou leur insertion possible dans un système de propositions déjà constituées, en un mot d'autres obligations particulières liées à ces propositions en raison de leur contenu.

On voit que, sous cet aspect, la Logique reste parfaitement distincte de la Psychologie. Elle ne lui demande en aucune manière de lui communiquer les résultats de ses observations ou de ses inductions. Elle présuppose comme elle (et c'est pourquoi l'on s'y trompe) des esprits personnels, actifs, capables de juger et de choisir; mais elle présuppose de plus que ces jugements ou ces choix diffèrent en valeur. Pour qui s'établit fermement dans cette position, le redoutable axiome de Parménide devient une belle espérance; 'Que la pensée soit identique à l'objet de la pensée!' On peut le rapprocher de la suprême perfection intellectuelle d'Aristote, l'Immobile 'qui nous meut en nous attirant'.

Faut-il ajouter que cette interprétation justifie très bien l'effort pour construire un algorithme aussi abstrait et aussi précis que possible? Des obligations vagues n'ont aucune portée. La législation appelle une langue juridique rigoureuse. Des transactions honnêtes réclament des comptes en règle, dont Leibniz faisait déjà remarquer qu'ils sont une manière de raisonnements formels.

La Logique, telle qu'elle existe depuis l'Antiquité, a toujours posé des normes; mais tantôt elle les énonce sous forme de règles, tantôt comme des lois nécessaires, tantôt comme des rapports entre des éléments métaphysiques. Parmi les règles du syllogisme, par exemple, les unes sont franchement normatives: ‘Aut semel aut iterum medius generaliter *esto*’; d’autres semblent constater une sorte de fait: ‘Pejorem *sequitur* semper conclusio partem’. On ferait évanouir beaucoup de pseudo-problèmes si, d’un bout à l’autre, on donnait expressément aux propositions et aux opérations logiques la forme qui répond à leur caractère le plus constant.

Nous avons rappelé la contradiction inhérente à la formule $a = a$, en tant qu’elle exprimerait la nature d’un objet de penseé. Mais le principe d’identité cesse d’être évanescent s’il veut dire: ‘Le droit et le devoir d’affirmer ou de nier une proposition sont invariables et imprescriptibles’. Nous avons là, d’une part l’élément unique: c’est la *lexis* en question; de l’autre, l’élément de diversité: la pensée qui dure, qui change, et qui en fait ne reste pas toujours fidèle à ses assertions. Impossible d’ ‘ignorer tout le psychologique’ comme le voulait Herbart. Mais non moins impossible d’en faire dériver la logique, qui s’y opposerait bien plutôt.

Appliquée au concept, $a = a$ signifie: ‘Il est interdit de changer le sens d’un terme au cours d’un raisonnement’. Il n’est pas nécessaire d’avoir consacré beaucoup de temps à l’étude des discussions philosophiques pour savoir que cet écriteau n’est pas inutile.

On en dirait autant du principe de milieu exclu (le mot même d’*exclu* indique, mais faiblement, un caractère normatif). La formule $(a^1)^1 = a$, d’où l’on tire $a \cup a^1$, c’est l’obligation d’admettre ce qu’on ne veut pas, ou qu’on n’a pas voulu rejeter. Il va sans dire, ici encore, qu’on ne s’en prive guère. Tous les mauvais *distinguo* servent à faire croire que le second a, malgré l’identité des termes, n’est pas le même que le premier.

Les ‘inférences immédiates’ concernent ce qu’on a le *droit* de conclure d’une proposition donnée, non le rapport intrinsèque des classes auxquelles elle se rapporte, c’est bien visible pour *SaP*, d’où il n’est légitime (l’existence des *S* étant admise) que de conclure à *PiS*, alors que peut-être c’est *PaS* qui est vraie. Toutes les conclusions ‘au moins’, qui ne sont pas rares, même en mathématiques, présentent ce caractère quasi-juridique.

J’ai déjà fait remarquer ailleurs que le prétendu cercle vicieux du syllogisme disparaît aussitôt qu’on y voit le devoir intellectuel d’accepter la conclusion quand on a accepté les prémisses, à quelque titre que ce soit, ou sinon, de faire machine arrière, et de rejeter au moins l’une de celles-ci. D’une manière générale, la transitivité d'une relation R, ou la valeur de toute autre formule analogue, n'est autre chose que l'obligation marquée par la copule principale dans *aRb*, *bRc*.>*aRc*, puisque, dans la nature des choses pensées, il se peut très bien que *aRc* ne *résulte* aucunement de *aRb* et de *bRc*.

La question du principe de l'induction, la plus inextricable des apories logiques, peut se résoudre comme j'ai aussi essayé de l'indiquer dans un autre travail, par un énoncé franchement normatif (qui concorde mieux que tout autre avec l'usage réel de ce raisonnement): 'En l'absence de toute indication contraire, on doit juger que ce qui s'est toujours passé d'une certaine manière continuera à se passer de même.'[1] En quoi l'on pourra se tromper matériellement, car l'induction n'est pas apodictique; mais si l'événement n'arrive pas, on n'en aura pas moins eu raison de s'y attendre. Ici encore l'analogie morale est évidente: *etiam non assecutis voluisse pulchrum est.* — Par ce biais, ou mieux par ce redressement, on ne répond pas seulement aux difficultés analogues à celles qui atteignent $a = a$ considéré comme loi des objets de pensée; on réintègre pleinement l'induction amplifiante dans la Logique, qui ne pouvait, du point de vue constatif, ni l'absorber ni l'exclure tout à fait. Et ce n'est pas en dehors de la logique formelle: car le calcul des probabilités fournit ici un algorithme dont la parenté avec le calcul logique est bien connue, et dont Mr. J. M. Keynes a montré d'autre part le rôle dans l'induction.

Pourquoi cette conception, qui détruit de faux problèmes, et à laquelle il n'est presque aucun logicien qui ne recoure par moments, n'a-t-elle jamais été adopteé avec consistance d'un bout à l'autre de la Logique? Je crois en apercevoir deux raisons principales.

La première est l'idée courante, non seulement chez les positivistes, mais chez les métaphysiciens, que les faits ou les existences sont plus solides que les valeurs, et qu'il faut y faire appel pour 'fonder' celles-ci. Mais c'est un préjugé que dément toute la philosophie moderne des sciences, et qui n'a peut-être d'autre origine que l'habitude de voir des règlements imposés ou sanctionnés par des chefs, des techniques déterminées par les résultats qu'on en attend. Comme l'a montré Whewell, les 'faits' de chaque époque incorporent les appréciations de l'époque précédente, quand elles ont obtenu l'assentiment à peu près unanime de la nouvelle génération. Ce sont donc au fond, les valeurs qui sont premières et fondamentales. Ne croire qu'aux faits, n'estimer que l'être, c'est faire comme le brave homme qui se borne à obéir à la morale courante de son époque, sans penser jamais à la faire progresser. Et sans doute cela vaut mieux que de suivre au hasard ses impulsions ou sa fantaisie. Mais si tout le monde s'en était tenu là, nous pratiquerions encore l'esclavage, et le Soleil tournerait encore autour de la Terre.

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[1] 'Logique normative et vérités de fait', *Revue philosophique*, mars 1929; *Les Théories de l'induction et de l'expérimentation*, un vol. petit in 8°, Boivin, 1929.

En second lieu, tout en reconnaissant des valeurs catégoriques, qui ne soient pas seulement l'expression ou l'effet d'une existence, on peut être rebuté par l'ideé que nos principes logiques, tels que nous les formulons, ont une histoire, qu'ils ont été sujets à transformations et que par conséquent ils ne représentent pas cet absolu. Mais cette suspicion mêle deux idées différentes.

Ce que Kant appelait formes *a priori* de la sensibilité, principes de l'entendement, idées de la Raison pure. Tout cela ne peut être *formulé* qu'en y incorporant en effet beaucoup de matériaux étrangers et peut-être temporaires, de même que l'idée artistique ne peut se réaliser qu'avec des matériaux, des instruments, une technique qui sont fonction de leur époque, et qui mêlent leur nature à celle de l'idée primitive. La raison, en tant que système de propositions premières, est une raison mixte, variable, constituée par une lente incarnation dans le sein d'une multiplicité donnée qu'elle organise. C'est à cette raison-là que l'on fait appel dans les discussions scientifiques ou juridiques: mais elle est bien chargée d'expérience, cristalliseé dans des formes contingentes par son travail antérieur. Aussi les empiristes ont-ils beau jeu à soutenir qu'elle a ses racines dans nos inductions physiques ou sociologiques les plus genérales. Mais pourtant ils ne peuvent jamais obtenir gain de cause: car il y a d'autre part, dans l'expérience, des *échecs* et des *succès* de l'esprit, vivement ressentis comme tels, et par conséquent rapportés à une mesure de perfection qu'elle ne fournit pas. Il faudrait donc dégager la raison à l'état natif et créateur, la raison 'constituante' et non plus constituée. Mais dès qu'on cherche une intelligibilité sans aucune détermination empirique, tout disparaît, semble-t-il, et se dissout dans le néant de l'identité pure.

Oui, ici encore, si l'on affirme l'identité comme un fait; non si on la pose comme une valeur (et je crois, comme la valeur par excellence): car toute valeur suppose la dualité dont nous avons besoin, le supérieur et l'inférieur, le pôle positif) opposé au pôle négatif. 'Le même, disait Platon, vaut mille fois mieux que l'autre, le semblable que le différent.' En descendant d'un degré vers le concret, nous pouvons dire que pratiquement doit être jugé progrès intellectuel ce qui réalise, tout compté, une assimilation des esprits entre eux, des choses entre elles ou des choses aux esprits. Il est facile de voir la parenté de cette norme et des formules de logique formelle les plus fondamentales, surtout si l'on tient compte de ce fait qu'un même esprit dans ses actes successifs, est pour ainsi dire une suite d'esprits différents. Ce n'est point la raison à l'état rigoureusement pur, puisque l'existence même du divers y est mentionnée, ou figurée, alors qu'il *n'a pas droit* à l'existence. Mais elles ne retiennent de l'expérience que la présence même de celle-ci; et par suite, si elles n'énoncent pas un absolu, ineffable par nature, du moins ne sont-elles plus solidaires des connaissances d'aucune epoque ni par conséquent sujettes à varier par accident.

WHEN DID JEWISH PHILOSOPHY BECOME EXTINCT?

A. A. ROBACK

TO some it may be questionable whether there ever was a Jewish philosophy or mode of thought. Among British writers, Buckle, Carlyle, and Goldwin Smith may be cited as belittling Jewish intellectual achievement on the ground that the Jews in antiquity were not a reflective people, as were the Greeks and Romans. Yet beginning with Philo in the second century, the foundations were laid for a distinct Jewish trend in that he was referred to as 'the Jew'. To all intents and purposes he was a Greek philosopher, but it cannot be gainsaid that there were many Jewish elements in his neo-Platonic doctrines.

In subsequent centuries, when Plato and Aristotle alone shone as the beacon lights on the rather obscure philosophical firmament of the Middle Ages, Jewish philosophy was given an individual place by historians in the triptych of scholasticism. Although it had not become known until recently that Avicebron was no other than the young Hebrew poet Ibn-Gabirol, the long line of Jewish thinkers beginning with Saadia Gaon in the tenth century and culminating in Spinoza was deemed worthy of comparison with men like Averröes, Alfarabi, and Avicenna on the one hand, and pillars like St. Augustine, Anselm, Thomas Aquinas, and Duns Scotus on the other. Here were thinkers of the scope of Ibn-Gabirol, Bahya Ibn Pakuda, Maimonides, Gersonides, and Crescas.[1]

It was a religious philosophy for the most part, except perhaps in the case of Avicebron, i.e. Ibn-Gabirol, who did not adduce any Biblical or Rabbinical lore in support of his arguments. But the Christian philosophers in France, Germany, Italy, and England were no less religious in their conceptions.

Jewish philosophy constituted a third panel in the scholastic structure, although it was produced on the same soil as the Arab philosophy and practically all of it in the same language. Could we talk perhaps of a Jewish school and an Arab school of philosophy? Even this distinction cannot hold, for there was more in common between Averröes and Maimonides than between the rationalistic Maimonides, and the voluntaristic Ibn-Gabirol, so far as doctrine goes. Yet it is conceded on all sides that there was a Jewish philosophy in the Middle Ages.

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[1] Gersonides in the preface to his *Battles of the Lord* complains that the sufferings of the Jews are so intense that they render meditation impossible.

With the inauguration of the Modern period, Jewish philosophy seems to have disappeared. The Jews still remain. They are active in intellectual pursuits, although the Holy Inquisition and the cruel greed of kings, together with the malice of ignorant mobs incited by demagogues, had conspired to stifle the spirit of research in them and to prevent intellectual contact with other peoples.

When Spinoza's name became associated with the system which he had crystallized, it was the philosophy of a Jew which was condemned at the time. A couple of centuries later he was honoured as a Dutch philosopher. I have heard the point made in all seriousness that since the Jews had excommunicated Spinoza, they cannot now claim him as one of their own. But the Jewish sources in Spinoza's teachings are so patent and have been discussed by so many authorities that a compendium of Jewish philosophy could not but properly include the doctrines of the Amsterdam lense-grinder.

Spinoza, it would seem, officially marks the absolute boundary of Jewish philosophy, although Spinoza was by no means the last Jewish philosopher. In the eighteenth century two of the acutest contemporaries of Kant, according to his own testimony, were Solomon Maimon and Moses Mendelssohn. While it is true that both were influenced by German thought and for the most part wrote in German, it ought not to be overlooked that both derived their first principles from Maimonides and other Jewish scholastics. Furthermore, that the mother tongue of both Maimon and Mendelssohn was really what corresponds to-day to Yiddish. The Polish Jew, Maimon, in whose semi-Humeian system there is at present being evinced a revived interest, could not write but a faulty German; hence to include him under the rubric of German philosophers is more than somewhat artificial. Similarly, although Mendelssohn imbibed most of his ideas from Leibniz, through Wolff, he has added a distinct Jewish colouring to those ideas.

Perhaps these two offer no difficulties to one who wishes to see a continued existence of Jewish philosophy. It is rather the recent past and contemporary thought which present real problems in this regard, for with the exception of Herman Cohen, founder of the Marburg School, whose affiliation with Jewish thought was apparent, there is not, so far as I know, a single one of the most outstanding Jewish philosophers in Germany, France, and England who has drawn on Jewish sources or who is conscious of a Jewish current in his philosophy. To all appearances, their tradition is German, French, or British, and the environment alone in which they moved and produced is reflected in their works. I have put the question before several of the most eminent Jewish philosophers in France, and that is what they gave me to understand; viz. that there is nothing in common between them and the Jewish philosophers in Germany and in Britain, or as some have expressed it: civilization is one, and the elements to be found in their philosophy are universal.

In one sense it cannot be denied that there is in our present age an international give and take in the intellectual world. Even in the early Renaissance it was not easy to decide which was originally Jewish and which was Moorish and which Patristic, so interwoven was the fabric, e.g. Thomas Aquinas employed arguments to prove the existence of God which could be found in Maimonides' *Guide of the Perplexed* and Bakhya's *Duties of the Heart*, and Nicolas Cusanus compensated for his animosity towards the Jewish people by citing some of their philosophical authorities.

If culture is but one and the whole history of philosophy mirrors but the particular ages in which different doctrines have cropped up, then *cadit quaestio*, then we cannot in strictness speak of a French, German, English, or Italian philosophy. In point of fact, however, there are to be found an increasing number of specific national histories of philosophy, which would argue for the existence of national trends, traditions or methods in philosophy, in spite of the different schools that each country may harbour.

Buckle long ago tried to differentiate between the Scotch, the English, and the German mind on the basis of environmental conditions. Without subscribing to Buckle's underlying materialistic principles, I think we do generally recognize that the British are empirical, that the German type of philosophy is transcendental, that the French lean to intuitionism and stress affectivism in all their thought. When we strike deviations, it would not be amiss to look into the racial antecedents of the propositi as well as the personal influence under which they had come. Thus the Swedish blood in Fichte might explain the residue in his philosophy which was not German. Similarly the Slav in Nietzsche will always reveal itself in the midst of the German environment. Even the British neo-Hegelians could not be mistaken for German neo-Hegelians; for the empirical note is not wanting in their system.

We have hitherto taken the expedient course of classifying philosophers after particular schools and then according to countries. Are philosophers then to be labelled with a political tag or are they rather to be understood in the light of psycho-biological antecedents? Perhaps the third possibility will be invoked, viz. that they are all members of one family which is altogether too much interrelated to permit of separate grouping. This latter view is often resorted to by a diplomatic minority in order to avoid disputes of a delicate nature. It might appear to some as if this were a question of wresting a philosopher from this or that country and annexing him to another. I remember reading once in a Lithuanian journal an article which attempted on the flimsiest grounds to make out of Kant a Lithuanian philosopher. In a popular book on philosophers, which enjoyed a phenomenal success, the same philosopher is referred to as a German-Scotch philosopher. If the affiliation of but one recent foreign ancestor entitles him and his nationality to be considered when mention is made of his illustrious progeny, then how much more justified is one in attaching the Jewish attribute to those philosophers who have sprung from a long line of Jewish ancestors, whose pedigree may be traced centuries back, and whose racial purity can scarcely be questioned? France or Germany will not lose their many distinguished philosophers of this race, if it is borne in mind that they are Jewish as well as French or German, but the psychology of philosophical origins and methods might thereby be greatly furthered.

In certain quarters, though not from the loftiest motives, a distinction has been drawn between Jewish and non-Jewish philosophers in contemporary Germany. It has been contended e.g., without any attempt at documentation, that Jews could not understand Kant, a statement which in the light of the annals of philosophy is nothing short of absurd. We must be careful to steer clear of partisan evaluations. Even Hegel's statement that only a Jew could have evolved the system of pantheism such as Spinoza did is a dangerous generalization, but it is altogether a different story when we *describe* merely the mode of approach, the *tour d'esprit* which is superadded as a figuration on the tradition of the environmental ground.

All this may sound like begging the question, especially if the philosophers in question themselves are not aware of any specific quality which one can call Jewish. It may be said at the outset that without analysis one cannot hope to discover these qualities;

and therefore the unawareness of the subjects is no argument against their existence. I think it is pretty well agreed that there are national characteristics in language, religion, folklore, and art. Philosophy and science should not be excluded from this purview. Much as we believe that truth is but one, there are many lines of approach to this truth; and if we make a study of the great formulations in science on the principle of the nationality of their originators, we shall be forced to the conclusion that in spite of the co-operation of many minds in different parts of the world, the establishment of a definite principle, law, or theory reflects a national form of thinking. Not a few were the predecessors and independent co-workers of Darwin, but the line of attack was essentially English. Similarly at least three scientists tackled the problem of the conservation of energy, but Robert Mayer gave the most characteristic and ultimate solution. We are not dealing with the value of the discoveries and inventions, nor with the number made by Englishmen, Frenchmen, or Germans, but rather with the type and the method followed.

It is to be understood in all the intellectual operations involved, there are both conscious and subconscious moments brought into play. Even if we do not accept all the implications of psycho-analysis, we cannot help realizing the importance of the non-conscious elements in everyday life. Consciously we may be influenced wholly by the environment, but who save the crassest mechanists and environmentalists would deny that we are born with hereditary dispositions to select our modes of approach to problems? What is behind these dispositions. Certainly not the soil on which an individual is accidentally brought into the world, but rather the line of ancestry with its characteristic mental set or 'Einstellung', e.g. a Jew who is born in Poland pursues his studies in Germany and then finally settles in England. His environment is English. He is in accord with or opposes this or that British trend. At the same time he brings to bear upon his contribution the fruit of his German training, but withal there is a racial guidance in his tactics and methods that is neither Polish, nor German, nor English; and the more he seeks to overcome the racial *élan*, the more it sinks into the subconscious, the more operative it is apt to become at a crucial moment. It is a study of these lapses, so to speak, which are overdetermined by the conscious effort of the thinker to throw off the racial burden and assimilate himself to the environment that would reveal the Jewish elements in any philosopher.

Jung's doctrine of archetypes is perhaps an exaggeration in this connexion, when he tells us that he is able on the basis of one dream related by a patient to ascertain the patient's race, but we may readily believe that in the rearing of a philosophic conception which especially savours of some originality, the racial antecedents will not be without their influence. Certainly this theory cannot be considered as acceptable until empirical evidence is introduced, but that is just the purport of this paper, to propose that a series of such analyses be undertaken with a view to establishing both what common elements there might be among Jewish philosophers of contemporary times and what deviations from their environmental traditions they present in their conception, expression, mode of elaboration, &c.

Turning once more to the question posed at the opening, viz. 'When has Jewish philosophy become extinct?' we must first of all establish our criterion of what constitutes Jewish philosophy. If the *sine qua non* is being produced on Jewish territory, then, alas, there never has been any Jewish philosophy, as a systematic discipline. Is the exclusive language of the Jews the prime condition? Again, we note that in this case the existence of a Jewish philosophy must be denied, for with few exceptions Jewish philosophers wrote in non-Jewish languages. Philo produced his works in Greek. Maimonides and Avicebron employed as their medium Arabic. Spinoza, with one minor exception, made Latin his vehicle of expression, while Maimon and Mendelssohn operated with German concepts.

It may be conceded perhaps that there are Jewish philoso*phers* but no Jewish philoso*phy*. This concession will, however, have to be extended so as to include other peoples; for the diversity of opinions and schools hold for the ganders as it does for the geese. Furthermore, it must be recognized that there are not only many more eminent Jewish philosophers in the present age than at any other time in history, but that their proportion to eminent non-Jewish philosophers is phenomenal. Now if the individuals are not to be identified as members of the people from which they have sprung, not politically, but biologically, then this phenomenon must of necessity be explained as a mere chance happening, which would constitute a philosophical *reductio ad absurdum*. When the branches of a tree produce fruit in luxuriance, how can one help gathering that the trunk has not lost its vitality, even though the boughs overhang neighbouring orchards and are intertwined with local trees and branches from which they receive their fructification?

By way of supplement, let me add there is slowly developing both in Hebrew, the traditional language of the Jewish people, and in Yiddish, the language of its vast majority (over ten millions), a philosophical literature, which, although mainly monographic and of a sociological and historiosophic nature, is not without its merit. Krokhmal, Moses, Hess, Akhad ha'Am, Martin Buber, Bernfeld, and many others have concerned themselves with the problem of the Jew's place in the world. What impedes the growth of a Jewish metaphysic in Hebrew or Yiddish is the comparatively small appeal of either of these languages for the intellectual world, so that a Jewish philosopher will naturally prefer to speak in a tongue like English, French, or German so as to gain a wide hearing. This is a handicap, of course, peculiar to all small nationalities, but in the case of the Jews the handicap is double, for they have no government of their own and as yet only the beginning of a university.

DENOTATION, CONNOTATION, AND DEFINITION

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DEFINITION of 'Denotation' will not be attempted. It is not a technical term and it is equivalent to other terms that are also not technical. E.g. the denotation of a term, i.e. what a term denotes, is said to be called by the term, and a term is said to denominate, to designate, to be a name of, to be applicable to, what it denotes. But the term 'Connotation' is technical and requires definition. The term is required by a certain theory about the way in which the denotation of at least some terms is determined or prescribed, and the question whether a term is connotative or not is the question whether its denotation is determined in the way which this theory lays down. The theory can best be stated by considering terms of the form 'that which has xness', where 'xness' denotes a character, i.e. a quality or a relation, which is peculiar to what 'that which has xness' denotes. It seems to be true that the denotation of 'that which has xness' is determined by the denotation of 'xness', so that the denotation of 'xness' seems properly described as the criterion by reference to which 'that which has xness' denotes. The connotation of a term may be defined as the criterion by reference to which it denotes, and a connotative term is one which denotes by reference to a criterion.

Terms which agree in connotation must agree in denotation; but terms which agree in denotation may differ in connotation. Thus, if 'aness' and 'bness' denote different concomitant criteria, 'that which has aness' and 'that which has bness' agree in denotation but differ in connotation. It follows that two terms may agree in both denotation and connotation, and yet a constituent term of the one, denoting what the one term connotes, may differ in connotation from a constituent term of the other, denoting what the other term connotes, provided that the two constituent terms agree in denotation. Thus, if 'aness' and 'bness' denote the same criterion but connote different concomitant criteria of this criterion, 'that which has aness' and 'that which has bness' agree in both denotation and connotation.

The meaning of a term is not its denotation. For terms which differ in connotation cannot agree in meaning. Nor is the meaning of the term its connotation. For the meaning of 'that which has aness' is not denoted by 'aness'. But the connotation of a term is a part of its meaning and is the whole of the part which is not common to the meanings of all terms. For, if 'aness' and 'bness' differ in denotation, the difference between the meanings of 'that which has aness' and 'that which has bness' lies solely in the difference between the denotations of 'aness' and 'bness'.

It seems to follow that to know what a term means, it is necessary and sufficient to know what it connotes. To say what a term means is, inevitably, to assign another term with the same meaning. If this other term is to enable the hearer to know not merely what the first term denotes but what it means, it must be such that its connotation is easily recognizable. It will be such if it contains a term denoting what the containing term connotes. A term of this kind will be called explicit, and to define a term is to assign an explicit term with the same meaning.

Definition of a term must be distinguished from description of what a term denotes, which is achieved by assigning a term, whether explicit or not, which agrees in denotation but differs in connotation. The same term is definable by means of, is reducible to, different explicit terms. These, which must agree in both denotation and connotation with the term defined and so with one another, may differ in two ways. (*a*) The constituent term denoting what the explicit term connotes may have any connotation consistent with this. In other words, any description of what the explicit term connotes may serve as a constituent term. (*b*) The constituent term may, but need not, be itself explicit. If the constituent term is itself explicit, the reduction of a term to this form is a double definition. For it defines both the original term and the term which denotes what the original term connotes. Thus, if a term, 'A', is reducible to 'that which has aness', and if 'aness' is reducible to 'that which has xness', then 'A' is alternatively reducible by double definition to 'that which has that which has xness'. On the same principle a definition might be triple, and so on. If there is no non-explicit term which agrees with 'aness' in denotation, and if the denotation of 'aness' is not known to the hearer, only a double definition will be serviceable, because only by enabling the hearer to know what 'aness' connotes can you enable him to know what 'aness' denotes, i.e. what 'A' connotes.

A term which contains a term denoting a part but no term denoting the whole of what the containing term connotes, will be called semi-explicit. It is often sufficient for a purpose to reduce a term to semi-explicit form, namely, when we want to get clear, not about the whole of the connotation of the term, but only about so much as distinguishes the connotation from that of the other terms which partly agree. Thus, if we, presupposing a knowledge of the connotative element which 'that which has aness and bness' and 'that which has aness and cness' have in common, want to enable a hearer to distinguish between them, it is sufficient to assign semi-explicit terms of the same meaning, which contain terms denoting 'bness' and 'cness' respectively, but which contain no term denoting 'aness'.

Strictly, substantival (i.e. denoting things) terms of the forms 'the thing with aness' and 'a thing with aness' and adjectival (i.e. denoting characters) terms of the form 'the character (quality, relation) with aness' are only semi-explicit. But the desire to isolate the connotative element, which distinguishes a singular from a general term or a substantival from an adjectival term, is rare. In the belief that such terms are further reducible to the strict explicit form, they will be called explicit terms, and in what follows only reduction to one or other of these forms will be attempted.

A further extension of the denotation of 'explicit term' will be convenient. It is possible, without using a term which denotes what the containing term connotes, to isolate connotation. Thus, 'a square thing' and 'a thing which is square' are as good as 'a thing which has squareness'. Now there are many connotations which it is unusual and awkward to denote. In what follows a term of the form 'that which is a', where 'a' is an adjective or adjectival phrase and where 'that which is a' means what is meant by 'that which has aness', will be reckoned explicit.

The thesis of this paper is that every term has both denotation and connotation, that it is, if not already explicit, reducible to explicit form, and so definable. It would follow that every term is doubly and triply definable, and so on. The method will be first to show how certain substantival and adjectival terms, which have been alleged to be non-connotative and indefinable, are definable; and then to show how the process called definition *per genus et differentiam* is related to what is here called definition.

The substantival terms about whose connotation and definition there has been most controversy are Proper Names and General Concrete Terms. An explicit singular substantival term is of the form 'the thing with aness', e.g. 'the thing stolen by Charles'. It is clear that 'the thing called Charles' is of this form, and that what it connotes is denoted by 'the characteristic which to be called Charles is to have'. An explicit general substantival term is of the form 'a thing with aness', e.g. 'a thing which is valued'. It is clear that 'a thing called a man' is of this form, and that what it connotes is denoted by 'the characteristic which to be called a man is to have'. It is also clear that 'Charles' and 'the thing called Charles' agree in denotation, and that 'a man' and 'a thing called a man' agree in denotation. The claim that these pairs of terms agree also in connotation and so in meaning must be defended.

1. It might be objected that this claim represents a term as meaning a complex in which the term is itself an element and that this would result in an infinite process, that if 'Charles' means 'the thing called Charles', this must in turn mean 'the thing called the thing called Charles'. The distinction between *suppositio formalis* and *suppositio materialis* seems to meet this objection. In the phrase 'the thing called Charles', 'Charles' means not what is meant by 'the thing called Charles', but what is meant by 'the name, "Charles" '.

2. An objection, which has been brought against the doctrine that Proper Names have no meaning, might also be brought against this claim. 'Palinurus overboard' conveys to those who know him more than 'something fell overboard and was called Palinurus'. This objection loses sight of the instrumental aspect of meaning and of the relativity of its serviceability to the antecedent knowledge of the hearer. If he already knows that the thing called Palinurus had certain qualities, he will easily infer that what fell overboard had these qualities. He will as easily infer this if told that the thing called Palinurus fell overboard or that the helmsman fell overboard. The same line of defence would meet a similar objection with reference to Concrete General Terms. They and Proper Names acquire not their meaning but their serviceability from our experience of what they denote.

3. It might be objected that the criteria here said to be connoted are not fundamental. Charles is called by the same term on different occasions because he continues, though amid differences, to display a residual identity of character. All men are called by the same general term because they have a common nature. This objection is fatal to Nominalism. But the doctrine here put forward does not deny that the application of a term is conditioned by the possession, by what the term denotes, of a character other than that which the application of the term confers. What the doctrine does deny is that such further character need on that

account be connoted. The difficulty in the way of admitting that such further character is connoted is as follows:

(*a*) The concrete character of Charles comprises both known and unknown characters, so that Carolinity cannot be the criterion by reference to which 'Charles' denotes. Similarly, 'a man' cannot connote what is denoted by the semi-concrete term, 'humanity'. (Only semi-concrete, because, in order to denote a character common to all men, you inevitably exclude the various characters by which the common character is accompanied in each man.)

(*b*) There is no convention about which of the known characters should be recognized as justifying the application of the terms. Locke's rational parrot makes it clear that 'a man' does not mean what is meant by 'a rational animal', even if the two terms, in fact, agree in denotation.

Let it even be supposed that at one time 'a man' did mean what was and still is meant by 'a rational animal', but that a new generation was not informed of this. The new generation would have learnt to identify, each by reference to whatever criteria he pleased, the things denoted by 'a man'. The criteria might vary from 'rationality' to 'featherlessness'. But nobody could appeal merely to his criterion to justify his use of the term. He could justify it only by saying, 'I have observed that whatever is a featherless biped is also called a man, and nothing else is. I infer that this featherless biped would be called a man, and, therefore, I call it a man.'

4. It has been objected that if the connotation of a term determined its denotation, 'it seemed a case of *ὕστερον πρότερον* to include in the connotation the property of being called by the name'. It must be admitted that no term can connote the property of being denoted by itself. But there is no reason why one term should not connote the property of being denoted by another, as the explicit term, 'the thing called Charles', clearly does. Two considerations seem to make it clear that this is all that our claim required: (*a*) The denotation and the connotation of a term are what people denote and connote by it. (*b*) When you have a difference of connotation you have, despite identity of denotation and identity of written or spoken sign, a difference of terms, so that it is not true that the same term can have different connotations on different occasions. Before the property of being denoted by 'x' can be connoted by 'y', what is denoted by 'y' must first have acquired the property of being denoted by 'x'. Thus, before there can be a term, 'Charles', which means what is meant by 'the thing

called Charles’, there must first be another term, ‘Charles’, with the same denotation but a different connotation. A possible connotation for this other term would be, the property of having been selected for denotation by a term, ‘Charles’. This connotation would be serviceable within a limited circle and would enable what was denoted to acquire the property of being called Charles. Thereafter, this property could be connoted either by the explicit term, ‘the thing called Charles’, or by a new term, ‘Charles’. All appearance of a *ὕστερον πρότερον* seems removed if it is recognized that what is connoted is not, being called Charles by me now, but, being called Charles by those who know him. The application of the term on any occasion is thus determined by reference to its application on previous occasions.

The connotation of terms denoting concrete and semi-concrete characters presents no difficulty. Most of them are already explicit, e.g. ‘the nature of Charles’, ‘the nature of a man’, and those which are not, e.g. ‘Carolinity’, humanity’, seem easily reducible.

The adjectival terms which present the same problem as Proper Names and Concrete General Terms are those which denote simple characters. These characters elude analysis, not because they transcend conception, but because they have no constituents. They are ultimately identifiable only by immediate comparison, though they may be described in various ways and so denoted by various terms. Thus, redness may be denoted by ‘the colour of the ruby’, ‘the colour you like best’, ‘the character called redness’. As ‘Charles’ means the thing called Charles, so ‘redness’ means the character called redness.

It remains to discuss the relation of definition *per genus et differentiam* to the reduction of a term to explicit form.

1. It is sometimes said that there are some terms in general use, whose denotation is known to all who use them, but whose connotation is known only to a few and only as the result of an investigation of what the terms denote. Really, such investigation discovers not the connotation of the original term but some other criterion of what that term denotes. If it is said that ‘a circle’ means a figure described by the rotation of a straight line about one of its extremes remaining fixed, this is a definition not as explaining what ‘a circle’ meant before the investigation, but as explaining what it has come to mean as a result of the investigation. It is not a definition of the original term but the institution by definition of a new term. Probably ‘a circle’ originally meant, and still means to the layman, that which is called a circle.

2. Definition *per genus et differentiam* is necessarily incomplete. By this is not meant that it is single, defining only the term it professes to define and not the term which denotes what that term connotes, but that it reduces the term it professes to define only to semi-explicit form. For the connotation of the term embraces both a generic and a specific character, and only the specific character, the differentia, is denoted by a constituent term.

3. There are many definitions whose relation to the reduction of a term to explicit form remains obscure until we recognize that they are double definitions. Sometimes the term defined is not explicit, and there is no explicit term except a doubly explicit term to which the term defined is serviceably reducible. Thus, only by defining 'philanthropy' can you serviceably define 'a philanthropist', because only by knowing what 'philanthropy' connotes can you know what it denotes and what 'a philanthropist' connotes. Sometimes the term defined is already explicit, but the constituent term denoting what the term defined connotes requires to be defined before its denotation can be known. Thus, 'the good', considered to be already explicit and equivalent to 'that which has goodness', might be defined as meaning that which is the object of a rational will. This is the reduction of an already explicit term to a doubly explicit term. Regarded as a single definition it is a definition of 'goodness'. (It is supposed here that 'goodness' and 'the character which to be the object of a rational will is to have' denote the same character and not different concomitant characters. Unless this is so we have no definition at all but only an alternative description of what 'the good' denotes.)

HAVE WE ANYTHING TO LEARN FROM SCHOLASTIC METHOD?

C. J. SHEBBEARE

ONE of our most distinguished visitors has asked in a well-known essay 'What is living and what is dead in the philosophy of Hegel?'[1] Since Hegel wrote, much water has flowed under the bridges. But 'What think ye of Hegel?' is still one form in which the supreme question of philosophy can be asked.

Signor Croce's formula, however, admits a wider application. 'What', our conveners have asked, 'is living and what is dead in the philosophy of Classical Antiquity?' There are signs in many quarters of an eager desire to prune out the dead-wood *everywhere*; to abandon unreal questions, questions which spring from temporary misapprehensions; and, again, among the real questions to distinguish the greatest—what another of our visitors has called *i massimi problemi*—and thus to discuss problems in their right order; to proclaim it as one of Hegel's best lessons that in philosophy order of exposition is vital.

In other words, there has been a certain hankering after scholastic *method*. But may we not go one step farther? Scholasticism aims not only at marshalling its problems. It aims so far as possible at an agreed answer; at definite results. In the Roman books we meet with such phrases as *commune inter theologos. Ita communiter omnes.* If we could arrive at agreed answers on a few main points—or even at a more extended agreement among a group of philosophers—might not this conduce to progress? Is there not an element of truth in the notion of a *philosophia perennis*,[2] even though the Roman theologians have applied it in a way few of us would approve?

'Scholasticism', it has been said, 'is the only philosophy that can be taught.' Twenty years ago the reply would have been: 'Therefore it is a bad philosophy. Philosophy cannot be learnt by rote. Philosophy is an attitude of the whole man: a great experience. Philosophy cannot be summarized. The lesson of Plato is no more to be given in a compendium than is that of Shakespeare.'

All this is partly true. We have all of us said of something, 'This or that is not a question which admits of a plain Yes or No'. We have probably been right. But there is another side to the question. If philosophy in one aspect is like poetry, in another aspect it is like physical science. It seeks results that can be chronicled. Some questions *do* admit of a plain Yes or No; and it is worth while to single out the chief of these. Of course, in any defence of scholasticism the philosopher must abjure utterly one element in it, namely, the reliance on authority: but the attempt to evade no question and to find a definite and simple answer is worthy, surely, of all imitation.

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[1] Croce, *Saggio sullo Hegel. Cio che é vivo*, &c.

[2] Cf. Gredt, *Elementa Philosophiae*, Aristotelico-Thomisticae, vol. i, p. 2.

(I) Lest I be supposed to be repeating commonplaces, let me seek an example. The best I can think of is drawn from the general province of problems relating to Time. I imagine that many of us feel that we owe an immense debt to M. Bergson and especially to *l'Evolution Créatrice*. It has made us feel—we might say—the reality of time, the living pulsation of continuous change and movement, as we had not felt it before. It brought before us a side of reality which we have been tempted to ignore; of which at least in our theories we have taken insufficient account. Other philosophers—and the general tendency of our times ever since the Romanticist Movement—have kept before us the high importance of human history.

Yet side by side with this vivid impression of the reality of movement, we have many of us been deeply stirred by arguments which question the ultimate reality both of Time and Space. 'The strongest proof', says the illustrious Vaihinger, 'of the subjectivity of Space and Time lies in their infinity'. *Der Raum ist ein subjectives Vorstellungsgebilde, weil er voller Widersprüche ist.* When impressive writers like Mr. Prichard[1] assail these idealistic convictions with rhetorically effective arguments—of which the pith is that the idealist is deceiving himself, that no one can *really* doubt the reality of Space and Time, the answer I always make in my own mind is that I cannot accept plain contradictions; that I cannot accept Space and Time as they present themselves. Space inevitably appears as at once a *quantum* and not a *quantum*; as having size but no size in particular. Space has size, because it is larger than this room. It has no size because any answer that you could give to the question, 'How great is it?' must always be wrong. And so with Time.

I am well aware that before we can settle this question as between the idealist and his opponent, we must weigh very fully such arguments as those of Dr. Alexander. What difference does it make if instead of Space and Time we think of Space-Time? We must weigh the arguments of the New Physics. Can we think of Space as 'finite but unbounded'?[1] Can the New Physics be disposed of in this connexion by pointing out that some of the New Physicists are themselves heading rapidly towards Idealism—that they would probably agree that the new way of regarding Space is rather a policy than a creed?[2] Again, can we dispose of the New Realists by pointing out that, so far as they make the claim to restore to Matter its 'ancient rights', their claim is unreasonable, since their representation of Matter is at least as novel and startling as that of the Idealists? We shall probably agree that neither the philosophical difficulties that lie behind the New Physics, nor the argument of the New Realists, can be lightly disposed of.

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[1] See *Mind*, July 1928.

But the case for Idealism is strong too. Thus, I suggest as my first specimen of the kind of question to which a plain Yes or No may be given—'Is the idealistic rejection of Time and Space consistent with the respect which the sane man owes to history? Is it consistent with the belief that history on the whole gives us truth?' I venture to think that the search for a definite answer to this question will bring together into a single connected discussion a large number of problems which seem at first sight to lie far apart.

(II) For, for one thing, this question of the reality of Space and Time, carries us on naturally to a wider question. This wider question can best be put by asking whether Hegel's categories are really the continuous chain which they profess to be. It is well worth while to work through the Greater Logic, the Lesser Logic, and the original short draft in the first edition of the Encyclopedia.[3] At each transition there are those remarks of penetrating insight which support the claim that Hegel is the greatest thinker of modern days. None the less, the chain of categories *as* a chain seems to me a great illusion. I seem to see at least two broken links; one at the transition to Being-for-Self; the other at the transition to Essence. It is difficult to put these things shortly. I shall perhaps make myself plain about the former gap if I say that the proof (which according to Hegel forbids us to rest in 'Being Determinate' and drives us on to 'Being-for-Self') is drawn too much from mere etymology. It is in fact assumed that all determinate being derives the whole of its nature from its limits, i.e. from what it is *not*. In such a category it is clear that we could not rest. But is the fact that we express definite character in language derived from spatial limits rightly to be pressed as Hegel presses it? Philosophy is always met by these linguistic difficulties. Hegel is here speaking of simple qualities. He makes clear that *Daseyn* has nothing to do with position in space.[1] It is fair then to ask whether the whole nature of a simple quality like 'blue' is to be found in what it is *not*—in its being '*not* green', '*not* red', &c., &c., &c. There is surely something definite which is positive and is the basis of these negations. Mr. McTaggart[2] interprets Hegel as meaning that as we advance the matter must be looked at 'in a rather different light'. Instead of saying that the nature of the thing must be found *in* what is outside it, we must now say that it has its nature *through* what is outside it, and so we reach the conception of a relatively self-centred reality. But what was there to prevent our recognizing a partly self-centred reality from the beginning? I suggest, therefore, that Hegel treats the notion of determinate being unfairly. He does not succeed in showing that we must *advance beyond* the contradiction involved in *Daseyn* because he has not shown that the contradiction exists.

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[1] Eddington, *Nature of Physical World*, p. 80.

[2] Lloyd Morgan, *Emergent Evolution*, p. 264, &c.

[3] The French commentary of M. Georges Noël—*la logique de Hegel*—seems to be in danger of being forgotten.

With regard to Essence, I suggest that it is not really deduced from the categories of Being. We know quite well what 'essence' means from examples. What *is* thunder? It is the result of the rushing together of the air previously divided by lightning. The nature of this distinction—the 'two levels' of essence—is extremely clear to us in the physical field. But if it were really deduced from the bare meaning of the categories it ought to work equally well in any field, and it does not do so. There is no such distinction obvious in the explanation of mental facts. Here 'essence' cannot be identified with 'ground' as in the physical sphere. The dentist knows the 'ground' of my pain better than I do; but what the pain *essentially is* is clearer to me than to him. It is just against common-sense criticism of this kind that a dialectical chain ought to be proof. If, then, we ask whether the chain of categories holds, I venture to think we must answer No.

(III) This answer would bring us to another question. Suppose for the purpose of argument that it is admitted that Time and Space succumb to idealistic criticism. Suppose further—again for purpose of argument—that we regard Hegel's criticism of the Categories of the Understanding as not merely 'not proven' but as incorrect. Suppose, for example, we hold that the world cannot be interpreted without the Category of Substance and without *plurality* of substances. Suppose, in particular, that we admit that distinct conscious persons are part of the ultimate reality of the world. May we then sum up the position by saying that, while these Categories of the Understanding hold their own, the familiar Categories of the Imagination have broken down under criticism? Apart from spatial and temporal categories—for although Space and Time have not always been called categories this name has been traditionally given to Quando and Ubi—apart from spatial and temporal categories the imagination is helpless. Thus, Idealism does not address itself to the imagination. It does not seek to present its doctrine in pictorial form. May we then take—provisionally and as a tentative basis for further advance—the position that, whereas the Hegelian criticism of 'substance' and 'plurality' has failed, the ordinary idealistic criticism of Space, Time, Matter, and Motion has succeeded, or at least has not been decisively refuted?

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[1] *Werke*, iii, p. 107 (edition of 1841).

[2] *Commentary*, p. 32.

(IV) If we answer Yes—and indeed before we answer at all—we must face the question of the reconstruction of our knowledge which such idealism makes necessary. Many philosophers are vigorously realistic in temperament and only idealists by intellectual compulsion. There are others who do not see the compulsion, and with them the realistic temperament has its own way. In every generation, then, Idealism will probably have to fight its battle anew; and it will fight it in vain unless it can give a satisfactory answer to the question, 'If Space, Matter, and Time are rejected as self-contradictory what remains of our known world?'

Our remaining question therefore concerns reconstruction. How are we to reconstruct the fabric of common and scientific knowledge after (or if) it is knocked out of its usual shape by the steam-roller of idealistic criticism?

So far as denial of *Matter* is concerned (if for the moment we keep out of our minds the harder problem of *Time*) Mr. McTaggart has given us his own solution in plain terms. 'If we hold', he says, 'that matter does not exist, something has been changed, no doubt; but what has been changed is no part either of common experience or of science but a theory of metaphysics which forms no part of either . . .[1] If we ask, then, of what reality the vast mass of knowledge holds true, which science and everyday life give us about matter, we must reply that it holds true of various sensations which occur to various men and of the laws according to which these sensations are connected, so that from the presence of certain sensations in me I can infer that under certain conditions I shall or shall not experience certain other sensations, and can also infer that under certain conditions other men will or will not experience certain sensations.'[1] This passage lies open to certain verbal criticisms at least. But its drift is plain.

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[1] *Some Dogmas of Religion*, p. 96.

But the harder question of reconstruction after the denial of Time still remains. Of this question I have met with no satisfactory treatment. If, on the one hand, time is unreal, and yet, on the other hand, the separate 'selves' are real and their history is true, it is clear that we must apply the category of substance to the 'self' in a new way. Substance has been called the '*correlatum* of change'. Thus, the self is commonly conceived as 'that which undergoes the changes that are its history'. But primarily, substance is the '*correlatum* of attribute'; it is that which *has* attributes. Even apart from a denial of time it would be in some ways convenient to regard the self of yesterday (which has the attribute of being in pain) and the self of to-day (which is at ease) as *two* substances rather than *one*. For is not the character and distinctness of a substance to be seen in its attributes? Are not substance and attributes simple correlatives? Thus, Time itself seems to compel us to a somewhat violent treatment of the category of substance. The denial of Time may put an end to this violence. This question is, then, whether we can resolve the life-history of an individual man into a *series* of *self-conscious substances*, which appear to themselves to be connected temporally, but are in reality connected by the bonds of causation, memory, moral responsibility, and in other ways, and are not in truth temporally successive. Before I can answer in the affirmative I must examine the peculiar connexion between my immediate consciousness and what I call my own past. I must consider every bond between this supposed past and my present self and ask whether temporal succession is really vital to this connexion; whether, in other words, what I am directly conscious of in memory may not be real without being really past. We have to ask whether temporal causation can be replaced by 'law'; whether laws are to be regarded as necessary truths of such a kind that if we had but sufficient knowledge we could see their necessity in somewhat the same kind of way as we see that of the propositions in Euclid. Such questions will lead up to the wider question whether a system which denying Matter, Space, and Time recognizes 'selves', their contents, and relations, as the sole actualities of the world, can successfully embody the whole of our physical and historical knowledge.

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[1] *Some Dogmas of Religion*, p. 95.

I ask these four questions here (though they interest me profoundly for their own sake) chiefly in relation to method. If, after reading, with sympathetic admiration of their freshness and variety, recent philosophic books in French, Italian, and English, one turns to recent philosophy written in German, one receives, I think, a most welcome impression of stability. Two books have been published within the last few years with almost identical titles—*Die Philosophie der Gegenwart.* Of these, Dr. Raymond Schmidt's collection of some two dozen *Selbstdarstellungen*—a foreigner, of course, cannot judge how far the collection is fully representative —is at least evidence of the existence of a great living tradition, such as supplies a framework within which our problems can be arranged. But it is perhaps well to remember that Scholasticism is a stable and living tradition too. Is not its habit of giving a plain 'Yes' or 'No' to modern, as well as to medieval, questions good, so far as it goes? May not some discreet imitation of this method help us to garner, even more effectively than we do, the rich fruits which the unresting speculation of modern times is daily producing?

LA DISTINCTION DU BIEN ET DU MAL EST-ELLE QUELQUE CHOSE D'ULTIME?

D. PARODI

LA question engage la morale tout entière. Nous nous contenterons d'indiquer, sous forme de thèses, la position que nous adoptons, sans tenter même d'en donner une justification suffisante.

1. La distinction du bien et du mal peut être comprise sous deux formes sensiblement différentes. On peut entendre par là:

(*a*) Ou bien la détermination, dans chaque circonstance de notre vie, de ce que nous devons faire ou ne pas faire.

(*b*) Ou bien le sentiment général qu'il y a un bien et un mal, même si nous n'apercevons pas clairement quel il est en chaque situation donnée, et l'obligation pour nous de rechercher d'abord où est notre devoir, pour le faire ensuite.

Se demander si cette distinction est quelque chose d'ultime, ce peut être aussi se demander ou bien si elle est quelque chose d'absolument simple, inanalysable et immédiat, au delà de quoi on ne peut pas remonter; ou bien si, tout en comprenant des éléments complexes, que l'analyse peut discerner ou dont elle peut rendre compte, elle ne comporte pas pourtant, soit en combinaison avec eux, soit par le fait de leur synthèse même, quelque caractère original et proprement irréductible.

2. Au premier sens, si l'on entend par la distinction du bien et du mal, l'évidence directe et concrète, dans toute circonstance où un choix moral s'impose à nous, de ce que nous devons faire ou ne pas faire, elle ne pourrait être quelque chose d'ultime qu'à la condition de concevoir la conscience, à la façon de J. J. Rousseau, comme 'un instinct divin', une sorte de révélation transcendante, ou encore une intuition, au sens bergsonien du mot, à la fois première et dernière, inexplicable et peut-être aussi infaillible, dont, en tout cas, on ne saurait rendre compte rationnellement. La moralité apparaîtrait dès lors, comme un aspect en quelque sorte surnaturel de la nature humaine; et l'œuvre de la philosophie, achevée aussitôt qu'entreprise, ne pourrait être que d'en constater et d'en décrire la présence en nous.

3. Mais, à le prendre ainsi, ce caractère immédiat du jugement moral, même si on le constatait en fait, ne serait pas pour autant une preuve suffisante de sa valeur, surtout après tout ce que nous

ont appris les ethnographes et les sociologues sur les variations et la relativité des règles morales. Le doute subsisterait de savoir s'il exprimerait autre chose que d'invétérés préjugés de peuple ou de race; des réactions habituelles et traditionnelles de la conscience collective; de vieilles manières de sentir et de penser devenues à la faveur des siècles comme spontanées ou naturelles.

4. Il y a plus: cette clarté immédiate du devoir n'existe guère que dans les cas très simples, et où, pour ainsi dire, aucun problème moral ne se pose: ne pas voler, ne pas mentir, dans les circonstances ordinaires de la vie. Mais, dans les cas plus graves, que des raisons d'ordre moral puissent être invoquées à la fois pour et contre une même action, qu'on ait par exemple à se demander dans telles ou telles circonstances si l'on ne peut pas, si l'on ne doit pas mentir pour servir son pays, ou un malade en danger, etc.; qu'il y ait, en un mot, des 'cas de conscience', c'est ce que le moindre examen sincère de la vie morale dans sa complexité nous contraint de reconnaître. L'action morale semble être celle dont on veut pouvoir, le cas échéant, rendre raison. Il y a une foule de situations où le difficile n'est pas seulement de faire son devoir, mais d'abord de découvrir quel est ce devoir ; et toutes nos idées, et notre conception générale de la vie, ou de la dignité ou de la destinée humaine, interviennent pour nous éclairer et nous guider dans cette recherche. Rien de moins simple, de moins immédiat et ultime, en somme, que la solution d'un problème moral tel qu'il se présente dans la complexité de la vie.

5. Mais si, par le caractère ultime de la distinction du bien et du mal, on entend maintenant celui du jugement moral dans sa forme seule, dans sa généralité et sa nécessité; c'est-à-dire la conviction qu'il y a un bien et un mal, du moralement obligatoire et du moralement défendu, et qu'il nous faut apprendre à le discerner d'abord, et à le réaliser ou à l'éviter ensuite; c'est alors le fait même de l'existence de la morale qui est en jeu, de la morale comme fait original et caractère plus ou moins distinctif de la nature humaine.

Il est clair dès lors que toutes les doctrines, — utilitarisme, évolutionisme ou sociologisme, — qui admettent une histoire et une genèse du sentiment moral, excluent par cela même le caractère de fait premier ou ultime attribué à la distinction du bien et du mal. Et il ne faudrait rien moins, pour pouvoir le maintenir, qu'une réfutation en règle de toutes les formes de l'empirisme en morale.

6. Mais le rationalisme moral nous paraît, au fond, l'exclure tout autant.

Prenons-le même sous la forme qui semble donner à la moralité la primauté la plus incontestable, et l'élever, non seulement au dessus de toute genèse empirique, mais de toute justification et de toute déduction à partir de quelque chose d'autre qu'elle: sous la forme, si l'on veut, de l'impératif catégorique kantien. Par cela seul que, chez Kant, le fait moral premier est encore 'un fait de raison', c'est-â-dire l'exigence d'une loi de la conduite, qui nous oblige en tant que loi, ou encore par sa forme d'universalité et de nécessité, par cela seul il se rattache à l'existence et à la nature en nous de la raison. La raison, même dans son domaine pratique, est toujours la raison: c'est-à-dire qu'elle se réfère à la nécessité d'attribuer à certains actes, à l'exclusion de certains autres, l'aptitude à être pensés comme conformes à une loi, c'est-à-dire, au fond, à être pensés et compris dans leur idée, dans le type d'actes qu'ils constituent, c'est-à-dire encore d'être jugés rationnels. Dire qu'il y a une morale, un bien et un mal, ce n'est rien dire de plus en réalité sinon qu'il y a une vérité dans l'ordre de la pratique autant que de la spéculation; et donc que le jugement moral, étant jugement, rentre, quels que soient ses traits spécifiques, sous les conditions du jugement en général, sous les catégories du vrai et du faux. Il n'est donc pas, à la rigueur, ultime.

7. En réalité, la distinction du bien et du mal nous paraît consister en une synthèse complexe, entre éléments multiples, les uns d'ordre psychologique, d'autres d'ordre social, d'autres encore d'ordre logique et proprement rationnel. Deux au moins sont essentiels. D'une part y est présupposée la distinction affective entre ce qui satisfait les tendances humaines et vitales, et ce qui les contrarie: pour des êtres qui n'auraient pas de tendances, tout, semble-t-il, serait indifférent. Mais, d'autre part, à cette relativité des actes aux tendances de l'être vivant, un jugement de caractère universel ou rationnel vient se joindre, qui lui confère un caractère de vérité inconditionnelle, et par cela même une forme morale: il y a des actes qui satisfont, non en fait les désirs de l'individu que nous sommes, au moment où nous vivons, mais bien, en droit, les tendances humaines en général, selon leur ordre de valeur, je veux dire leur universalité et leur cohérence mutuelle. Établir et justifier un tel ordre, c'est édifier une théorie de la conduite ou une éthique.

La distinction du bien et du mal, du point de vue du rationalisme, ne nous paraît pas être un fait premier et irréductible, parce qu'elle nous paraît donc se produire au confluent d'une double série de jugements: d'une part, tous ceux que l'expérience de la vie, individuelle ou collective, nous inspire, relativement à nos tendances, et aux actes qui peuvent ou non les satisfaire; et d'autre part, les jugements rationnels, impersonnels et désintéressés, par lesquels, faisant abstraction de nos désirs ou de nos interêts du moment, nous apprécions en général la valeur réciproque et de ces tendances, et de ces actes.[1]

8. N'y aurait-il pas pourtant, dans la complexité du jugement moral, des éléments originaux et spécifiques, qu'on pourrait encore à ce titre et en un sens atténué, dire ultimes?

Il peut sembler d'abord que le jugement de vérité morale tel que nous venons de le définir, risque de rester un jugement tout théorique, ne s'adressant qu'à intelligence seule et incapable de mouvoir ou de refréner la sensibilité. Reconnaissons que la règle générale et seule universalisable d'une conduite humaine, que sa forme normale, ne saurait être le mensonge, ne pourrait être que la véracité; et donc que la loi, sociale aussi bien qu'humaine, ne peut être ici que d'être véridique et de ne pas mentir; de même que par exemple la loi du triangle isocèle est d'avoir ses angles à la base égaux. Mais pourquoi dois-je me conformer à la loi? Et ne puis-je vouloir, tout en la reconnaissant comme loi, m'en exempter personnellement, à titre d'exception? Si nous imaginons un triangle devenant conscient de sa nature, où serait l'obligation pour *lui d'être* isocèle, plutot que scalène, et de faire plus que constater son état tel qu'il est? L'élément synthétique *a priori*, c'est-à-dire irréductible et ultime, ne sera-t-il pas ici, de se sentir intéressé au triomphe de la loi, de vouloir, en soi comme hors de soi, en tant qu'il dépend de nous et comme conséquence de nos actes, le triomphe de la raison? Telle est, semble-t-il, la synthèse originale qu'exprime le: 'Tu dois.'

Soit. Mais remarquons qu'une obligation de cet ordre, liée à la conscience d'être les auteurs de nos actes ou d'être libres, est enveloppée dans tout usage de la raison. Dès que j'entrevois le vrai, en quelque domaine que ce soit, je me sens obligé par ce vrai même, obligé de le reconnaître et de l'avouer pour tel, obligé de le rechercher d'abord et de le dégager, par cette bonne volonté, 'cette prière naturelle', comme disait Malebranche, qu'est l'effort d'attention; et de le proclamer et de le communiquer ensuite. Si bien que, d'abord, ce qu'il y a d'irréductible dans l'impératif moral, loin de définir un domaine spécial de la vie humaine, celui de la pratique, individuelle ou sociale, apparaît coextensif à tout usage de la pensée; c'est sans doute l'activité spéculative qui n'est qu'un cas particulier de l'activité raisonnable en général ou de la moralité, et non l'inverse; tous les jugements sont au fond essentiellement des jugements de valeur. Et, en outre, cette synthèse première et fondamentale, racine et stimulant de notre activité sous toutes ses formes, se ramènerait par là à cet impératif ultime, dont la forme presque identique ou tautologique n'exprimerait que la prise de conscience de notre être même dans ce qui en fait l'originalité et la dignité: 'Être raisonnable, agis en être raisonnable'; ou encore: 'Homme, sois homme.'

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[1] Nous avons développé ces vues dans deux ouvrages; *Le Problème moral et la pensée contemporaine* et *Les Bases psychologiques de la vie morale.* (Alcan. éd.)

9. Par là, le jugement de moralité en général, d'abstrait et de formel qu'il pouvait sembler d'abord, tend à redevenir personnel et vivant. Mais, par cette voie, il peut le devenir toujours plus complètement, jusqu'à rejoindre, à la limite, le jugement concret sur ce qu'est le bien ou le devoir en chaque circonstance particulière, tel que nous l'avions défini et écarté en commençant. Car, il n'y a, au vrai, que des situations originales et nouvelles dans la vie de chacun de nous; à la rigueur, rien ne s'y répète jamais, et elle n'est faite que de 'cas de conscience'. Le devoir en général ne nous apparaît que dans la série des actes où il doit se réaliser, chacun singulier et inédit. Aux diverses heures importantes de notre vie, nous sentons bien que nous devons exprimer notre personnalité la plus profonde, déployer l'énergie qui nous est la plus propre, dans la détermination, dans l'invention d'une action unique, répondant à un ensemble unique de circonstances. Comment c'est pourtant par un effort d'abstraction et de généralisation, par une méthode de raison encore, que cette invention, toute personnelle qu'elle soit, peut s'accomplir, nous n'essaierons pas de le déterminer ainsi. Il n'en reste pas moins que tout acte morale, dans sa complexité réelle, est découverte d'un devoir en même temps qu'effort pour le réaliser. Comme l'a montré Frédéric Rauh dans son livre si suggestif et si riche sur l'*Expérience morale*, la distinction du bien et du mal se présente rarement comme la simple application d'un précepte général à un cas particulier, comme une opération de subsomption logique: elle est au contraire la découverte, par l'agent, de sa volonté la plus spontanée et la plus profonde. L'acte moral est celui qu'après enquête, réflexion et recherche, l'honnête homme sent qu'il veut de sa volonté la plus authentique; l'acte qui lui paraît le seul que, dans la circonstance donnée, il puisse vraiment consentir à faire, pour être vraiment lui-même et sans déchoir ou se trahir.

10. En ce sens, et bien que préparée et éclairée par le plus

complexe effort rationnel, la distinction du bien et du mal, le discernement de ce qu'il faut faire en chaque moment de la vie, se présente bien comme une décision, un 'fiat' de la volonté, et, au sens plein et complet du mot, un jugement. Ultime, en ce sens, dès lors que, dans son originalité toujours singulière, il est irréductible à aucun des éléments ou à aucune des raisons sur lesquels il s'appuie, et dont il est, non la somme, mais proprement la synthèse. Ultime encore, si l'on veut, en ce sens, qu'issu de toute notre expérience morale personnelle comme de tout ce que nous nous sommes assimilé de la réflexion morale universelle, il l'applique, il l'adapte à des circonstances nouvelles, et donc, toujours plus ou moins, il y ajoute et il innove. Ultime enfin, en ce qu'il en est ainsi, à chaque moment, le point d'aboutissement, et, provisoirement au moins, le terme dernier. C'est par la série même de ces inventions personnelles que se constitue le trésor commun de la sagesse humaine, la continuité et l'universalité de la raison morale.

LOGICAL CONSTRUCTIONS AND KNOWLEDGE THROUGH DESCRIPTION

L. S. STEBBING

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I THINK it may be agreed that it is important to understand clearly the nature of logical constructions. I think that I am not alone in being very muddled with regard to this problem, so that I have taken advantage of this opportunity for discussion to state as clearly as I can some points relating to logical constructions in the hope that some who are present may throw light upon the matter.

Although the expression 'logical construction' is due to Mr. Bertrand Russell, he has nowhere, I think, stated clearly exactly what he means by 'logical construction', still less has he attempted to offer a precise definition. I think that he first used the expression in 1914, both in his article on the 'Relation of Sense-data to Physics' and in his lectures on 'Our Knowledge of the External World'. In the latter, although he constantly speaks of 'hypothetical constructions', and of the 'construction of permanent things', he does not use the expression 'logical construction' in the plural, nor does it occur in the index; in one place, however, he speaks of exhibiting 'matter as a logical construction out of sense-data'.[1] In the earlier article he lays down as 'the supreme maxim in scientific philosophizing' the principle: *Wherever possible logical constructions are to be substituted for inferred entities.* The way in which Mr. Russell has used this principle—which is equivalent to *Ockham's Razor*—is no doubt responsible for one prevalent misconception with regard to logical constructions, namely, that a logical construction is an ideal construction or is a fictitious entity. I want to suggest that from the fact that *x* is a logical construction it does not follow that *x* is an ideal construction or that *x* is a fictitious entity. Nor, again, does it follow that *x* is an imperceptible entity.

I begin by asserting two propositions, both of which, as I write this paper, I know to be true. These propositions are: (1) *This is black*; (2) *The pen is black*. I am going to assume that the *pen* is a logical construction.

Professor Moore has suggested that 'logical construction' can be defined by means of incomplete symbols. The consideration of Mr. Russell's use of the notion of incomplete symbols may throw some light upon the nature of logical constructions. It seems to

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[1] Op. cit., p. 101.

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me that the use he makes of it is dependent upon the distinction he has drawn between knowledge by acquaintance and knowledge by description. This distinction can, I think, be expressed by reference to the way in which we use symbols. For convenience I shall use the word 'referend' for that which a symbol symbolizes. There are two totally different ways in which symbols can be used. We may use a symbol to point out, or to demonstrate, an object with which we are acquainted. A symbol so used I shall call a demonstrative symbol. Thus a demonstrative symbol is one which demonstrates its referend, and its referend is an object of which we are directly aware, that is to say, which is directly presented to us. For example, if, fixing my attention upon something sensibly presented to me, I say 'this', then 'this' is a demonstrative symbol. The sole function of a demonstrative symbol is to demonstrate, so that apart from the referend which 'this' demonstrates 'this' has no significance. Secondly, a symbol may be used to ascribe characteristics. Such a symbol may be called a descriptive symbol, e.g. 'philosopher'. When a symbol is used to ascribe characteristics it is clearly not dependent for its significance upon a referend with which we are acquainted. Since these two kinds of symbols are differently related to their respective referends, it is clear that the two uses are quite different.

Descriptive symbols may be so used in certain combinations as to constitute what Mr. Russell calls a definite description. Mr. Russell says that definite descriptions are incomplete symbols. He does not use the expression 'complete symbols'; he contrasts incomplete symbols with what he calls 'proper names'. By a 'proper name' Mr. Russell means, I think, what I have called a 'demonstrative symbol', for the first paragraph of Chapter III of the Introduction to *Principia Mathematica* shows that Mr. Russell is contrasting symbols used to demonstrate a referend with symbols not so used. But demonstrative symbols can be used only when we are acquainted with the referend of the symbol. Hence, the distinction between incomplete symbols and those that are not incomplete relates to the distinction between knowledge by acquaintance and knowledge by description. This distinction seems to me to be absolutely fundamental. If I understand the distinction rightly, the relation which 'by' expresses is not the same in the two cases, so that it might be better to express the latter by 'knowledge *through* description'.

Now, it seems to me that according to Mr. Russell's account of descriptions to know A through description is to know A indirectly through a characteristic that belongs to A. To be acquainted with A is to know A directly. *Knowing indirectly* is a relative product, one of the factors of which is not a cognitive relation. *Perceiving* seems to me to be a case of *knowing indirectly*.[1] Perceptual knowledge, however, is not *inferential* knowledge. Consequently, to know A indirectly is not equivalent to knowing A by inference. Inferential knowledge is only one case of indirect knowledge. *Knowing directly* cannot be analysed into the product of two relations. It follows from what has been said above that when we know A directly we could refer to A by means of a demonstrative symbol; when we know A *only* indirectly we could not. But a referend to which we *could* refer by means of a demonstrative symbol might also be referred to by means of a description. Also, we might come to know A directly when we had formerly known A only indirectly. Hence, direct and indirect knowing are not exclusive, but the way in which the symbols are used in the one case is different from the way in which they are used in the other.

One of the difficulties in understanding the nature of logical constructions is due to the difficulty of recognizing different kinds of symbols. It might be supposed that the distinction between demonstrative symbols and those that are not demonstrative is so obvious that no one would ever have been mistaken in supposing that he had direct knowledge of A when, in fact, he had only indirect knowledge. But this is not the case. The plain man supposes that 'the pen' is the same kind of symbol as 'this' and that he knows *the pen* in the same way exactly as he knows the colour that is sensibly presented to him. The difficulty of distinguishing between the cases appropriate to the one kind of symbol and the cases appropriate to the other is due to the fact that the grammatical syntax of sentences containing demonstrative symbols may not differ from the grammatical syntax of sentences containing descriptions. It follows that, if in the one case the analysis of the sentence reveals the analysis of the proposition it expresses, then it cannot do so in the other case. The proposition expressed by the sentence I shall call the 'corresponding proposition'. The fact which a true proposition represents I shall call the 'corresponding fact'. For the sake of brevity I shall refer to the corresponding proposition as C.P., and to the corresponding fact as C.F. I shall assume that the form of a proposition is expressed by a logical constant. Sentences clearly differ in the extent to which they reveal the analysis of the C.P. Using an expression taken from Mr. Wittgenstein, I shall say that a sentence which exactly reveals the analysis of the C.P. is a 'pictorial sentence'.[1] Perhaps there are no pictorial sentences. If there are any it seems to me that they must consist wholly of logical constants and demonstrative symbols. In the case, then, of a pictorial sentence which pictures a true proposition, the constituents of the C.P. other than the combining constituent (symbolized by a logical constant) are symbolized by demonstrative symbols, and these demonstrative symbols demonstrate constituents of the C.F.; and conversely. In the case of a completely non-pictorial sentence there are no symbols which demonstrate constituents of the C.P., and, consequently, there are none which demonstrate constituents of the C.F. There are degrees of pictorialness. The nearest approach we can get to a pictorial sentence is 'This is black'.[2] The sentence 'The pen is black' is not pictorial. 'The pen' looks like a demonstrative symbol, but it isn't. The sentences, 'The present Prime Minister is conceited', 'The United States have sent delegates to this Congress', 'The economic man prefers a greater apparent gain to a less', do not contain any demonstrative symbols. They are, I think, progressively less pictorial. Consequently, the analysis of their corresponding propositions is progressively more difficult.

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[1] I tried to show this in a contribution to *Supplementary Volume IX, Aristotelian Society*, p. 155. Prof. Moore's paper in the same volume maintains that not all indirect knowledge is inferential knowledge.

Sentences containing descriptions express propositions which *could* not be expressed by pictorial sentences, because the constituents of the C.P. do not contain a constituent which is such that we *could* refer to it by means of a demonstrative symbol. 'The pen is black' expresses a proposition which is such that there is *no* constituent of which we could say that *this* is the pen. To say of x that 'x is a pen' entails, (i) that x is existing now, (ii) that x has existed for some time and through every part of that time, (iii) that x is not a sense-datum nor a characteristic. But it is also true that x cannot be a group of sense-data or of characteristics. Mr. Russell has sometimes suggested that x is a group of sense-data; he has also said that x (i.e. a physical object) is a string of events. But when I say that the pen is black I am not saying that *a string of events* is black; when I say that the pen weighs $\frac{3}{4}$ oz. I am not saying that *a string of events* weighs $\frac{3}{4}$ oz.; when I say that I am now perceiving the same pen as I perceived yesterday, I am not saying that I am perceiving the same *string of events.* The pen is not a string of events, nor a group of sense-data; it is constructed out of facts with regard to a group of sense-data. It is thus constructed out of what can be known directly, but it is not possible to know *the pen* directly, the pen is known indirectly, and can be referred to by a symbol that is not demonstrative.

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[1] See *Tractatus Logico-Philosophicus*. Props. 4·01–4·013.

[2] If, as seems to be the case, 'This is black' must be analysed in some such way as 'This has some character of the kind black', then even this sentence is not an example of a completely pictorial sentence. (See G. E. Moore, 'Are the characteristics of particular things universal or particular?', in *Supplementary Volume III*, *Aristotelian Society*, p. 101.)

It is not, then, true that *nothing* is a pen, but it is true that there is nothing which *could* be referred to by means of a demonstrative symbol and which *is* the pen. But there is not the slightest reason for supposing that what cannot be referred to by means of a demonstrative symbol must be either an *inferred* entity or a *fictitious* entity. Every sentence which expresses a fact *must* refer to some constituents of the world. But it does not follow that the constituents to which the sentence refers are such that they *could* be referred to by a demonstrative symbol.

Mr. Russell's use of his principle of 'constructions *versus* inferences' does suggest that logical constructions are fictitious, or imaginary entities. But it is not possible to *perceive* a fictitious entity, and I want to maintain both that I *perceive* the *pen* and that the *pen* is a logical construction. If this is the case, then it does not *follow* from '*x* is logical construction' that '*x* is a fictitious entity' or that '*x* is imperceptible'. It is true that *x may* be imperceptible, not because it is a logical construction but because of the *kind* of logical construction it is. For example, *points* are imperceptible, *The United States* is imperceptible. There are many different kinds of logical constructions; *The United States* is a different kind of logical construction both from *pens* and from *points.*

I think it is important to recognize that logical constructions should be defined through sentences expressing *true* propositions. *The present King of France* is not a logical construction.

The consideration of the sentence, 'The economic man prefers a greater apparent gain to a less', may indicate the difference between logical constructions and ideal constructions. Sidgwick says that 'the economic man' is 'the ideal individual to whom our economic deductions relate'. But 'the economic man' is not a logical construction, though it would be *if* there was a man who was 'the economic man'. Propositions in which *the economic man* is the apparent subject are hypothetical propositions. Consequently, we can say that *the economic man* is a hypothetical entity. But the same is not true of *the pen*, or of *the present King of England.*

AN ANIMISTIC COSMOLOGY

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THE universe presents itself to man as the great Sphinx—ever patient of man's attempt to guess its secret, which is also man's secret. If our guesses are in the direction of truth, we prosper—not only by material success but, what is more important, by the health and enrichment of the spirit. If our guesses are in the wrong direction we fail to steer our life in the sea of change and are submerged. We must approach the great Sphinx in a spirit of humility if we would learn, remembering that our guesses are at best something like the truth. We cannot hope for demonstration. The only place where we have demonstration is formal logic; and there we deal merely with the definitions of words. When we deal with reality we must be content with the solution that is most probable under our limitations. This is especially true when we set out upon the great adventure of cosmology. Plato called his great poetic interpretation of nature a myth to contrast it with demonstration. But he held, nevertheless, that we must seek for the myth which is most probable. The cosmological myth must have its roots in the past. It represents the urge of history—the whole striving of man to comprehend the mystery of the universe. But it must use whatever of evidence the present search for light can furnish, while its shoots of intuition and budding hope stretch into the indefinite future. Our poetic interpretation must not only make consistent and reasonable the appearances pieced together into fragmentary patterns by science, but it must satisfy all our fundamental human interests—our aesthetic and religious demands as well as our scientific demands, our sense of value as well as our sense of fact.

There are two great traditions in Western cosmology—the mechanical tradition and the aesthetic tradition. These go back to the beginnings of Western thought. Thales is the founder of mechanics. He based his philosophy upon the aspects of nature revealed by the hand. What can be touched is substantial. Pythagoras started the aesthetic tradition. He emphasized mathematical forms as revealed in the realm of the eye and the ear—geometry and harmony. Light limits and figures the background of unlimited darkness. Sound can be tamed through number into music. In the tradition that follows Pythagoras, substance comes to signify the meaning or form of things. The two traditions reach their climax in the fourth century B.C. Democritus erects the world of touch into a cosmology—an infinite variety of little solids which play upon each other at random and make worlds. Plato creates the dualism of spirit and matter. Spirit is the agency which gives form, matter is the raw material which is to be induced to take on form. Spirit is more important, not in the sense that matter does not exist, but in the sense that matter has no value or meaning without spirit.

The founders of modern mechanics did not erect mechanics into a cosmology. On the contrary, they assumed a creator, a supra-mechanical principle as the ultimate reality. Newton takes pains to point out that a mechanical world could not come into existence of itself nor run indefinitely by itself. It contains the seed of its own destruction, especially the constant 'decay of motion'—which we call entropy. It remained for Laplace to construct a universe on strictly mechanical principles. But he did not reckon with entropy. Recently mechanistic cosmology has been called forth from Hades by the genius of Sir James Jeans[1] and decked in the livery of nebulae and stars. But it is plainly a ghost. It no longer carries the conviction of the eighteenth century. While Plato calls his poetic interpretation of the universe a myth, mechanistic cosmology gives itself the air and authority of science, but really it is more of a myth than the Timaeus. Both art and mechanism are analogies borrowed from human experience. But art is the deeper analogy.

Modern mechanistic cosmologists assume as a background for the picture of cosmic evolution a primordial chaos in which matter is distributed uniformly throughout space. Jeans pictures an initial condition where the molecules are uniformly spaced three yards apart, an enormous distance for molecules. Such a condition would give the maximum of potential energy. Of course, it is infinitely improbable that such a condition should have happened by chance. Moreover, such a condition, being a perfect equilibrium, requires some initial disturbance. It is not self-starting. And if it cannot start it cannot go, and that should be the end of it. Jeans therefore makes another assumption—a gravitational disturbance, or more picturesquely, 'the finger of God'. But why should God put his finger into that pie? With these two assumptions Jeans thinks he can deduce the universe from Newtonian mechanics.

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[1] *Astronomy and Cosmology*, 2nd ed. 1929; and *The Universe Around Us*, 1929.

The mechanical theory of the universe extends the second law of thermodynamics or entropy into a cosmic law. Entropy is the *bête noir* of mechanistic cosmology. Entropy signifies that in all the transactions of energy there is a loss of available energy; and since this loss is finite all the available energy must eventually disappear. According to Jeans the energy of the stars is the result of the breaking down of matter until matter shall have spent itself in radiant energy. This radiant energy is all the while being dissipated into space where it rarely encounters matter and therefore the greater portion of it is in effect really lost. Even that which encounters matter merely hastens the doom of that matter, which in turn must be dissipated into radiant energy and lost into empty space. The world is a finite affair so far as its future is concerned —a matter of some billions of years. It must also be finite so far as its past is concerned—a matter of some billions of years. The existent world must have originated by some unknown magic. Jeans recognizes the break-down of the mechanistic hypothesis, but he makes no serious attempt to supplement it. He suggests that it may have been 'the finger of God' which started things. But I do not believe that God runs a game of chance. Elsewhere he tells us that matter seems to stream into the spiral nebulae from some unknown dimension of space. Again, he falls back on an obscurantist philosophy which makes the cosmos an unreal show with the human mind as the magician. What is clear is that a mechanistic hypothesis, moulded upon inorganic matter, cannot be a sufficient explanation of the universe. It is true that the period allowed for cosmic evolution is enormous compared to our human lives. But this should not blind us to the futility of the whole thing. The mechanistic hypothesis, if taken as a philosophy, lands us in intellectual bankruptcy. It requires a miracle in order to start the world and holds out no promise for the future except universal death.

The fact which is beyond dispute is that the cosmos is a going concern. We must conceive it as an eternally going concern or land in magic. The conservation of energy must mean somehow conservation of levels of energy, which means that somehow there must be compensations, as between the parts, which make this possible. No mechanistic conception of the universe can explain how the cosmos can be a going concern. The conception of energy as delivered in quanta, with no loss on the way until matter is encountered, shows how individual quanta can be effective irrespective of the distance, and so bridges space so far as the individual quanta are concerned. But on the mechanistic conception most of the quanta would be dissipated into space, and all would be eventually dissipated with the dissolution of matter or the running down of energy to its lowest level; and, therefore, the doom of the universe would not be averted.

It is evident that the mechanical conception of the universe, useful though it has been for a limited purpose, cannot be erected into a cosmology. A workable cosmological theory must be in some sense animistic. Only by conceiving the cosmos as a living whole can we conceive it as a going concern. A living thing is the only kind of thing which can run energy up to a higher potential as well as down to a lower potential. In some sense the cosmos is a dynamic equilibrium, but it is a living equilibrium, not a mechanical equilibrium. In a living equilibrium there is mutual interaction of parts under the guidance of the whole. Energy is directed to a target. It is sent where it is called for and not merely scattered at random. In this sense the parts are in virtual contact in a living thing—not by spatial contact but by the control of the whole. Our old conceptions have been too particularistic and too externalistic. The individual and the environment have been conceived as having merely an accidental relation to one another. In our new conception the individual is part of its environment and the environment is part of the individual. An individual, be it an electron, a biological organism, or a personality, cannot exist without its field. And the ultimate field in every case is a cosmic field. Everything is what it is by adjustment to cosmic curvature (to use the language of Weyl). This implies a field or structure, but it also implies individual determination, and this is an independent variant. Else there were no adjustment—no comedy or tragedy. In a living whole the field must be forward-looking: it must be a teleological field, having reference to the future history of the parts and their relation to one another and the whole. Finally, this conception of a living whole must be adequate to account for all the types and levels of adjustment which we must recognize in our experience.

My cosmology is built upon the conception of the cosmos as a going and self-determinating whole. The mechanistic conception of the universe cannot give us a self-consistent cosmology because it must in its regress assume at a finite time a non-mechanical factor to account for the origin of the state of affairs which it assumes. Nor can the universe be a self-maintaining whole on mechanical principles. The fact of entropy prevents that. Nor can the mechanical conception account for the measure and structure which we find. It could not account for the units of energy in nature nor for the observed universality of material structure. If we must assume a non-mechanical factor, why not include this in our conception as somehow immanent in the cosmos, instead of introducing it as a *deus ex machina* when our mechanical account fails? If we require a creative genius to start the universe, why not assume that this creative genius is eternally involved in the nature of the cosmos? In that case we do not need to postulate a miracle in some finite past—some billions of years ago.

We must with Plato recognize two great principles in the cosmos—spirit and matter. We cannot project the real world into one series with merely increasing organization of energy, for we must account for the organization. Organization is the spiritualization of matter, endowing it with value and meaning, subliming it (as Milton would say) into nobler form, until it becomes 'a thing of beauty and a joy for ever'. Without spirit matter would be amorphous, having no units or order except by accident. In a world in which spirit works, matter is never completely amorphous. Even on the most primitive level of matter there is 'measure and number'. The solid bulk of matter may dissolve into the uncertain electrons and protons, and these in turn into radiation, 'leaving no whit behind', but these are measured and obey numerical ratios in their transactions. The whole material world is immersed in spirit like an enveloping sea.

Spirit and matter have complementary properties. Matter is characterized by inertia, spirit by spontaneity; matter by entropy, spirit by creativeness. Matter is ever losing potential. Life and mind increase potential. The law of spiritual activity is the inverse of material acitivity. For matter activity means loss of energy; for spirit activity means gain. We do not become poorer by communicating our spiritual energy but richer. Material activity means dissociation of energy. All material activity is bought by the using up of quanta of energy. Light is degraded to a longer wave-length by the loss of quanta of energy when it acts upon matter. Matter in acting upon matter loses in velocity, i.e. in quanta of motion. Spirit, on the other hand, is synthetic. It brings the units of energy together into greater complexity and potentiality of pattern. The ultimate units of energy are constant. All radiation has the velocity of light. What is required is a principle of synthesis. Spiritual activity is constructive, restorative, and healing; material activity is disintegrative and tends to the lowest level of diffusion, a 'heat death'. Matter and spirit are thus complementary in the drama of nature. We have no reason to despise matter and entropy, for these furnish the instrument of spiritual construction. If matter had no downward course, spirit could not build up its marvellous structures. Matter furnishes the body, spirit the soul of things. But it is soul which furnishes the end, the value of the process. Without spirit there would be no form, no worth. And this value is for us human value. We know of no other.

The conception of the universe as an aesthetic process of realization furnishes great advantages over the mechanistic conception. In the first place, the aesthetic conception overlaps. It can take account of the mechanistic conception as a limit. The mechanistic conception shows what the universe would be without God, as Plato would say. It helps us also to understand the limitations of the teleological conception. There is always the inertia, the indeterminateness, to overcome. This is true not merely on the lowest level of nature—the bringing of the elements of nature together into the primary level of structure. But this inertia or wilfulness exists at every level. To produce a synthesis of a higher pattern it is necessary to overcome the inertia of the *status quo*. And nature shows that this can be done only in part. Many are called but few are chosen—lend themselves to advance, are venturesome, at any level of nature. If it were not so, all nature would be at its highest level. But the higher the level, the smaller the proportion of participants.

The aesthetic conception enables us to account for form in nature—for nature falling into definite patterns (*Gestalten*) which are immanent in nature (and not due merely to external accidents, including experimental conditions) such as the forms of the atoms as they reveal themselves in their chemical reactions. The aesthetic conception, moreover, enables us not merely to account for form but the scale of forms, and the prospective adaptation which such a scale of increasing complexity indicates in nature. The mechanist's conception, from Lucretius down, assumes a tendency in nature to increasing complexity when the conditions are favourable. But it furnishes no rationale of such a tendency, nor any control through which the conditions could ever be favourable for such progression in complexity, amidst the accidents of nature. The principle of natural selection is a negative principle, not a constructive principle. But if there is a whole-control, working towards greater richness of reality, we can see how such a tendency in nature can be effective. In any case, we must assume such a whole-control to account for the units of energy and the scale and uniformity of the patterns of energy within the world of our observation. This control must be in the nature of an aesthetic control, for it makes possible aesthetic comprehension and admiration even at the lowest level of organization. We know aesthetic activity first-hand only in the realm of spiritual creativeness. It is for us, therefore, most reasonable to believe that the genius of nature works as an artist; that the artistic creativeness of man is the outcome of this activity, and that our insight into nature is made possible by the creative empathy or sympathy between the creative mind of man and the creative mind in the universe. The conditions, which bring about the emergence and effectiveness of the human mind, must be the outcome of intelligent control, for it is infinitely improbable that all the conditions required for human art should be the outcome of chance. It is only by viewing the universe as the field of creative spirit that we can understand the co-operation of nature towards the development of creative spirit.

THE QUESTION OF PROGRESS IN METAPHYSICS IN THE LIGHT OF SOME PRESENT TENDENCIES

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THE problem of progress might appear irrelevant to philosophy, from certain idealistic standpoints. In the view of those who assume the reality of the temporal process, progress is not excluded. But if it is difficult to establish in other phases of history, the difficulty may seem to culminate in philosophy, especially on Hegel's view that there is an intimate relation between a philosophy and the life of the people in which it appears. The distinctions and succession of the ages would, however, signify that each has its own contribution to make, whether or not this is an advance on its predecessor. Reference to the actual course of history suggests that certain problems with which philosophy has constantly been occupied are treated with increasing subtlety in later times. Assuming that progress is not dismissed *a priori* as unmeaning, have we any grounds for expecting real novelty in the methods of investigating any of these problems, leading to truer solutions? A philosophy may be held to show the farthest point reached by the mind that originates or accepts it, in the endeavour to find meaning or reality in experience. The ways of approach are as various as the histories of individual seekers. We cannot in theory set limits to the possibility of new insights, if we admit a creative activity in mind personal.

I propose to consider the question of progress in relation to the problem which in some form has been perhaps the most recurrent in metaphysics since the beginnings of philosophy, in East and West, asking in particular whether any new insight upon it may be expected in the near future, in the light of past and present. The problem is that of the true nature of mind, whether as the one, the universal, or as the many individuals, and the relation to each other of the two forms. It might appear that the waves of speculation have for many ages advanced and withdrawn to and from closely similar attempts to solve this problem, without any new solution emerging. Yet moments may be singled out at which the problem is set in a new form, the effect of which is never after lost. As an example might be given the conception of Plotinus accounting for the whole range of existence as changing, the flux of things in disorderly succession, as ultimately due to a descent from the

One. This notion of a metaphysical fall reappears from age to age in diverse systems. The idea underlying the logical method of Hegel is not far from it. The principle of the argument concerning the relation between truth and existence from Anselm to Bradley seems to belong to the same line of thought. Philosophy had—if the phrase be permitted—to drink the draught of Plotinus to the dregs.

Spinoza's doctrine of the individual 'modes' and their *conatus* might provide another such example. Here the distinctive view appears to be that the reality of the whole necessitates that of the parts to the degree at which these appear to have an all but independent character. The problem of the one and the many might almost seem solved as a problem for knowledge, but the aspect of the world as historic remains unintelligible.

Are there any signs in modern thought which indicate the occurrence of another such moment in the history of speculation on this subject? There appears to be in the present age a certain lessening of interest in metaphysics in contrast with devotion to problems in the theory of knowledge. It is possible to interpret this as an outcome of the whole history of Western philosophy. From the beginning the tendency has been, through many fluctuations, towards increasing concentration upon the relation of consciousness to the object of knowledge. The nature of the present partial withdrawal from metaphysics differentiates it, however, from an attitude which is merely an historical stage in the main stream of philosophy. It is as if something more than has been expected of metaphysics in the past were being demanded, though with a doubt whether the demand can be satisfied. Professor Whitehead seems to give voice to this feeling in his observation that philosophical results do violence to certain facts of immediate experience.[1]

How can it be that if we have found reality, we should (with Hume) leave it behind in our study when we return to common life? It is possible that a new view of the task of metaphysics is more or less obscurely held. As I would urge—this view implies the consciousness that there are two fundamental types of experience and that reality must be conceived as fully manifested in each. Any attempt to derive one from the other must lead to the omission of something essential to its nature. It has been more usually the practical-historic side which, in the attempts of philosophy to conceive the world as a unity, has been treated as subordinate and deducible from the nature of the universe regarded as object of thought and intellectual knowledge. But the opposition of the world of eternal forms and relations as wholly intelligible and real to the illusory manifold of perception ever in flux, the conception of which has throughout the history of philosophy maintained a pervasive influence, even when rejected, fails through abstraction, since it leaves out that condition of the temporal process which is the source of its reality. When the process is concretely viewed as history, and history is understood to consist in the meaning and value found by mind in individuals in the course of events, it is seen that a stream of phenomena unreal in change is an abstraction from experience, and the actual process of events in time has reality. This reality cannot be derived from reality viewed as a timeless intelligible system, whether conceived as independent of the perceiving mind or as over against it as object to subject, or as inseparable unity of subject and object, for it is of a totally other kind. But neither can the world of knowledge be derived from the nature of the will (Schopenhauer) nor creative evolution (as appears to result from M. Bergson's position) nor biological necessities (as in Pragmatism). Here also there is over-abstraction. The two aspects are then both ultimate for our experience, and inseparable, though distinct. Every element of experience enters into the world as knowledge and thus belongs to a static system. All that can be knowledge enters into the historic process; it is experienced as meaning given to the events. But that which we feel to be the noumenal, the essential reality of the one type, cannot as such be found in the other. Thus there are certain experiences of actuality which have to be transformed when experience is presented as an intelligible system. And in this transformation, the warmth, so to speak, or sting of the real disappears. When the temporal series is conceived as a timeless logical series there is no equivalent for the irreversibility of time. When the values are conceived as universal principles there is no compensation for the uniqueness of every value for the experiencing mind. Nor for the experience of continual novelty and creativity when the totality of being is thought as an eternal completed system.

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[1] *Process and Reality*, p. 68.

The need then of presenting this dualism from a somewhat fresh angle would be at least one possible interpretation of the demand for a new standpoint as to the task of metaphysics. And ultimately the demand is for new light on the problem of mind, universal, and individual. In relation to the metaphysic of the world as knowledge the conception of mind as universal must prevail and, be assumed in all our methods. In relation to the metaphysic of history and practice our interpretation must recognize that mind personal, unique, is all in all. It seems to be on the latter aspect of things which for long received little attention in comparison with the former that more concentration is now required.

What indications of a more specific kind are to be found in present-day thought that such a stage has been reached, signifying a moment of progress in the sense understood? It might at this point be noted that in view of the subtle analyses of M. Émile Meyerson revealing the presence of the irrational in the realm of the most abstract sciences,[1] it may be maintained that the spectre of irrationality gives no ground for the exclusion of the historic process from philosophy, since it cannot be exorcized from the boundaries of knowledge. The necessity for a wholly novel point of view in regard to process and the eternal receives very distinct expression in Professor Whitehead's last book, culminating in the doctrine that 'by reason of the relativity of all things, there is a reaction of the world upon God' (page 488). Dualism, however, seems almost to disappear, since 'the cosmological story in every part, and in every chapter, relates the interplay of the static vision and the dynamic history' (page 235). Professor Alexander's cosmology would seem to point, in the principle of the *nisus* to a higher order, to a law of things, straining because of incompleteness to transcend finite limits. But this would be a law of limited mind, and mind would thus be there from the first. And in *Space Time and Deity*, mind only emerges as the fourth order. Whilst Professor Hans Driesch has combined the philosophy of life and of knowledge,[2] the considerable development of philosophies of the Monad, the self or the person, prepares the way for a new conception of the metaphysic of practice. These philosophies seem to imply that we must go not merely to life but to human life, and to human life at the source of its practical humanity, the real principle of practice. From this proceeds the significance of history. The principle is interpreted from many sides. In Professor Wildon Carr's work it is so mainly from the epistemological side resulting in a solipsism freed from its acutest difficulties. The American Personalists emphasize with Professor Carr the creative activity of persons. A remarkable attempt to combine the values of the eternal and the temporal is made in the late J. E. McTaggart's philosophy of the timeless reality of selves, who in their apparent experience are irretrievably involved in the misperception of the real series as a temporal series. The logical basis of the metaphysic cannot admit the reality of time, yet the highest value consists in the interrelation of the selves, and this would seem to necessitate the experience of the temporal process. Paradox then results from non-recognition of the dual aspects of the real, as in McTaggart's doctrine of the 'futurity' of the whole. The late Max Scheler's ethic of value supplies the lack in Kant's transcendent concept of the person. The *a priori* is not merely formal. The noumenal self or person can therefore be source of value.

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[1] *De l'Explication dans les Sciences.*

[2] *Wirklichkeitslehre*, &c.

The historic standpoint in idealistic philosophy has been brilliantly presented in the writings of Signor Croce and Signor Gentile. In contrast with McTaggart these philosophers appear to conceive the process as real without admitting the necessity of individual selves. Yet individuals seem to be for Signor Croce more than appearance. 'The historical web', he observes, 'is and is not the work of individuals' (*Philosophy of the Practical*). From the standpoint of pure philosophy, then, he seems to approach the view of the philosophic historian. In such works as the *Historismus* of the late Ernst Troeltsch, steeped in the reality of historic experience, perhaps the best preparation for a metaphysic of the practical process is to be found. That which Hegel denies, 'the reality of the individual and of the form of the future', becomes for Troeltsch the most important point of the problem. The emphasis is on the 'once-for-allness, the never-to-be-repeated character' of the historic objects. Yet (as I would add), if we turn to the view of the changing scene, as in spite of all its particularity, capable of presentation as a static system, every detail of which might be seen to exhibit the immanence of universal principles, what we are conceiving is neither a falsification of the process, nor a 'bloodless ballet of categories', any more than it is the eternally true form from which the process is a degeneration or falling away. It is the other type of the real, the other way of knowledge, also the other way of action. For in this also we are striving to create an object of worth.

There may be some affinity between Troeltsch's notion of the immanent interpretation of history and Signor Croce's doctrine of the Universal Spirit. Yet it is not in historic reality, as historic, that the universal is to be found, though our minds with irrepressible longing return to the magic of this idea, after the heaviest reverses of experience. For Troeltsch himself the presence of the one spirit is not a matter of knowledge, but is rather discerned through 'ahnen und fühlen'.

I have then argued that the conception of a somewhat different form of attack upon the perennial problem of metaphysics, that of the one and the many, as mind universal or in finite individuals, may be seen to be implied in some recent and present tendencies. If this be admitted, it would be an incident in the kind of progress that is possible in philosophy. It would in fact signify that of the infinite possible points of view in regard to the reality signified by our experience, we have arrived at one, not previously occupied in the history of philosophy. Nevertheless, since a philosophy is intrinsically an individual experience, the doubt remains whether there can be general knowledge that such progress has taken place.

From a more objective standpoint, there appears to result from the position of the paper the contradiction that the principle of progress must be affirmed in the metaphysic of the world in the practical historic aspect, and denied in the aspect of reality as intelligible system. Does this involve that the idea of progress in philosophy as metaphysics (with which this paper is concerned) is itself contradictory? For it may be said, if, in the temporal process, at a certain stage we assert that the real is timeless, either this proposition is an event in progress, and in that case time *is* real, or it is not progress, and then either progress does not take place or this proposition is false, and there can be no aspect of the world as timeless.

Otherwise viewed: If we suppose a doctrine of the world as eternal to be arrived at in time, and to be an advance on previous types of metaphysic, as soon as it is affirmed it annuls all views inconsistent with it, and it becomes impossible that these should have been held in time. Unless this results the doctrine is not metaphysical, but one that may be held for the convenience or instrumentality of thinking; it can only be a doubtful form of epistemology. On the other hand, if we start from the conception of the world as timeless, intelligible system, the theories that appear to have risen in the course of the temporal process can be viewed as having a kind of timeless being, at a low stage of reality, or as errors conceived to be minimum degrees of truth. A correspondence may even be assumed between the order of degrees of truth and the order in which systems appear in time. Such a type of correspondence is suggested in J. E. McTaggart's formula of the real or inclusive series of which the temporal series is an appearance as misperception, each later stage of the latter signifying a stage of greater inclusiveness in the real series. The value, however, of progress seems to be given no significance on this interpretation.

The only solution of the problem in the form in which it is raised in this paper, which would avoid a final contradiction, would lie in the recognition of a certain real priority in the aspect of the world as temporal. For if this be admitted, we can explain the fact that the knowledge of the timeless system is arrived at in time, whilst it is not to be conceived as the whole truth but an aspect. Whereas if we assume the prior reality of the eternal system, the notion of progress is wholly illusory.

In relation to the idea of progress the affirmation of a certain priority in the temporal order of reality would then appear to be justified.

This affirmation would make intelligible a greater part of our experience than does the other view. And the history of philosophy, which is at least one of the greatest experiences of the human mind, loses much of its significance, without the postulate of the possibility of progress.

KENNZEICHNUNG UND ERKLÄRUNG DES ORGANISCHEN LEBENS

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ZWEI einander entgegengesetzte und einander ergänzende Tendenzen beherrschen die eine Aufgabe menschlichen Erkennens: unbefangene *Kennzeichnung* der Ordnungsvielheit und Ordnungsbesonderheit und darauf aufbauende hypothetische *Erklärung* jener Ordnungsvielheit und -besonderheit durch Aufweisung von Einheit in der Mannigfaltigkeit, durch Gewinnung von möglichst wenig, möglichst einfachen Ordnungsvoraussetzungen, als deren 'Ergebnis' die Ordnungsmannigfaltigkeit erscheint. Während bei der Erklärung im Gebiete der seelischen Erlebnisse und im Gebiete des kulturerzeugenden menschlichen Gemeinschaftslebens verschiedene Formen des Zusammenhang-Verstehens auftreten, wird das Gebiet der *Natur*gegebenheiten beherrscht durch die Erklärungsform der *Theorie*, der Herleitung zahlreicher verschiedener Klassengesetze der Ordnungskennzeichnung aus hypothetischen Allgemeinheitsgesetzen in möglichst mathematischer Formulierung der Gesetze wie jener Herleitung. Solche Ordnungsermittlung stellt Beziehungen fest und damit zugleich Identitäten, und wo es sich um Veränderung handelt, Konstantes oder Invariantes. Im Bestehen einer Ordnung invarianter Relationen innerhalb eines zeitlichen Wechsels räumlich-qualitativer Zuständlichkeit liegt die *Gesetzlichkeit* der Natur. Naturgesetzlichkeit kann daher in *Geschehensgesetzen* festgehalten werden, in Relationen der zeitabhängigen Ordnung, in welchen die Art der Veränderung selbst als konstant auftritt, sowie in *Strukturgesetzen*, in Relationen des gegenüber der Veränderung invarianten qualitativ-räumlichen Beieinanders, in Relationen der zeitunabhängigen Ordnung. Geschehensgesetze und Strukturgesetze pflegen bei der Ordnungskennzeichnung in mannigfachster Verbindung aufzutreten, sind aber hier im Prinzip trennbar; ob ihr Unterschied noch für die letzten Voraussetzungen der Theorie in Betracht kommt, ist in der letzten Wendung der physikalischen Theorienbildung zweifelhaft geworden.

Erkenntnis der *Organismen* und der in ihnen gegebenen *Lebensvorgänge* bedeutet Kennzeichnung und Erklärung besonderer Naturgegebenheiten. Unbefangene Kennzeichnung der tatsächlichen Ordnung muss auch hier der erste Schritt sein. 'Unbefangenheit' der Kennzeichnung heisst Unabhängigkeit von vorweggenommenen Erklärungsversuchen, da in diesen stets die Gefahr einer Unterdrückung vorhandener Ordnungsbeziehungen zugunsten einer vermuteten Einheit der Erklärung liegt.

Die Struktur- und Geschehensgesetzlichkeit der anorganischen Natur gilt in weitem Umfang auch für den Aufbau der Organismen und die Lebensvorgänge. Freilich sing viele organische Stoffe ihrer Struktur nach noch unbekannt, viele organische Vorgänge in ihrer Gesetzlichkeit nicht durchschaut. Es ist aber durchaus wahrscheinlich, dass dies mit der hohen Verwickeltheit im Aufbau vieler organischer Stoffe wie in die Verknüpfung des physikalisch chemischen Geschehens in dem komplex-polydispersen System des Protoplasmas zusammenhängt, welche die Erforschung erschweren. Das könnte eine hohe Wahrscheinlichkeit dafür bedeuten, dass die Gesamtheit der organischen Strukturen und der Lebensvorgänge eine Erklärung aus den—freilich auch noch nicht endgültig ermittelten—letzten Voraussetzungen der im anorganischen Bereich geltenden Gesetzmässigkeiten gestattet. Dies aber hängt nicht nur von den physikalisch-chemischen Kennzeichnungsgesetzen der organischen Natur ab, sondern vor allem davon, ob jene Voraussetzungen der anorganischen Natur eine Herleitung auch der *übrigen* Ordnungskennzeichen gestatten, die das organische Leben und seine Träger ausser den physikalisch-chemischen Kennzeichen aufweisen.

Zur erkenntnismässigen Bewältigung dieser spezifisch organischen Ordnungskennzeichen hat man zumeist den *Zweckbegriff* verwendet, der wegen seiner Beheimatung in den andersartigen psychologischen und sozial-kulturwissenschaftlichen Wissensgebieten stets ein Fremdling innerhalb des modernen naturwissenschaftlichen Denkens geblieben ist. Bei der Erfassung der Lebensvorgänge und Lebensstrukturen von 'Zwecken' d.h. von beabsichtigten Zielen von Handlungen zu reden, war keine unbefangene Kennzeichnung, sondern kühne und sehr bedenkliche 'Erklärung'. Darum sahen sich auch alle vorsichtigen Teleologen seit Kant genötigt, den Zweckbegriff als eine Fiktion, als ein 'Alsob' einzuführen, als einen Vergleich, dessen Unzulänglichkeit man sich bewusst war, und der schon deswegen nicht als einwandfreie Ordnungskennzeichnung gelten konnte. Da nun der einzige 'Zweck', an den man hier denken könnte, die *Erhaltung* des Lebensprozesses selbst als eines *Geschehensganzen* und die damit verbundene Erhaltung der Organismen ihrem Aufbau nach, als *Strukturganzen*, ist, so ist der Zweckbegriff innerhalb der Biologie überflüssig geworden. Die Begriffe einer Erhaltung von *Geschehens* oder *Funktionsganzheit* und einer Erhaltung von *Struktur-* oder *Formganzheit* der Organismen reichen zur Kennzeichnung der Ordnungsbesonderheit des organischen Lebens (neben den physikalisch-chemischen Beziehungen) aus, ohne dass Zweckbegriffe herangezogen werden müssten, während der Zweckbegriff ohne jene Ganzheitbegriffe keinen biologischen Sinn hätte. Auch fällt mit der rein kennzeichnenden Anwendung des hypothesenfreien Ganzheitbegriffs die anthropomorphe Deutung hinweg, die der Zweckbegriff unverlierbar in die schlichte Aufzeigung der im organischen Leben bestehenden Ordnung hineinträgt.

Freilich hat der Ganzheitbegriff nicht für sich schon diese Ordnungsbedeutung; er ist keine Gebietskategorie der Biologie, sondern eine allgemeine Gegenstandskategorie. Es bedeutet für sich sehr wenig und jedenfalls nichts spezifisch Biologisches, wenn man sagt, der Organismus oder der Lebensprozess sei 'ein Ganzes'. Aber der Ganzheitbegriff ist eine solche Gegenstandskategorie, die durch ihre besondere Verbindung mit anderen Kategorien Gebietsordnung stiften kann, d.h. zur Formulierung von Ordnungsformen dienen kann, die einzelne Erkenntnisgebiete auszeichnen: in den Sozial- und Kulturwissenschaften, in der Psychologie, in der Biologie und auch, wie insbesondere Wolfg. Köhler gezeigt hat, in der anorganischen Naturwissenschaft treten Ganzheitbeziehungen *besonderer Art* auf, die für den jeweiligen Sachverhalt genau bestimmt werden müssen, dann aber auch die hier bestehende Ordnung klar zum Ausdruck bringen. Aufgabe der Ordnungskennzeichnung des organischen Lebens ist es daher, die Ganzheitgesetzlichkeiten seiner Vorgänge und Strukturen so genau als möglich zu präzisieren, um die hier bestehende besondere Art der Ganzheiterhaltung bestimmen zu können.

Nicht in einem einzelnen Teilprozess, sondern im Zusammenhang aller liegt die eigentümliche Ordnung des Lebens. Die knappe Redezeit verbietet es, im einzelnen zu zeigen, dass und wie Ernährung, Fortpflanzung und Entwicklung, organologische und architektonische Formbildung, das in Bewegungserscheinungen sich äussernde Verhalten der Lebewesen wie ihr historischer Charakter sich durch Ganzheitgesetzlichkeiten kennzeichnen lassen, durch 'Harmonien' unter normalen, durch 'Regulationen' unter anormalen Bedingungen, denen sich die besondere Beziehung des Lebensgeschehens zu den psychischen Erscheinungen als bemerkenswerter Umstand anfügt. Es gibt zweifellos auch eine *Begrenztheit* der Ganzheiterhaltung organischer Formen und Vorgänge, es gibt 'Fehlreaktionen', nicht ausreichende Regulationen, Missbildungen, Krankheiten, Tod; aber über Missbildungen, Krankheit und Tod triumphiert, oft im einzelnen und stets im ganzen, das sich erhaltende Leben.

Für die *Kennzeichnung* der Organismen und der Lebensvorgänge sind Gesetzlichkeiten von Formganzheit und Funktionsganzheit unentbehrlich. Aufgabe einer *Theorie des Lebens* ist es, sie mit dem physikalisch-chemischen Geschehen zugleich in ihren einzelnen Verwirklichungen abzuleiten.

Für eine solche *Erklärung* der Lebenserscheinungen lässt sich zunächst folgende Disjunktion bilden: entweder reichen die Gesetzmässigkeitsvoraussetzungen der anorganischen Natur aus, auch die Ganzheitbeziehungen des Lebens zu erklären oder sie reichen nicht aus. Im ersten Falle ergibt sich eine *monistische*, zumeist unangemessen und missverständlich *mechanistisch* genannte Theorie, im zweiten Falle eine *dualistische*, die wegen der behaupteten Sonderstellung des Lebens auch *vitalistisch* heisst.

Für die 'mechanistischen' Theorien bestehen folgende weitere Möglichkeiten:

(1) Der Theorienansatz der anorganischen Naturwissenschaft enthält keinerlei Ganzheitgesetzlichkeiten, sondern nur Einzelgesetzlichkeiten. Die Ganzheitbeziehungen der Organismen sind der Ausdruck für das nicht durch besondere Gesetze bedingte und daher zufällige Zustandekommen relativ dauerhafter Strukturen, welche die Vorgänge so bestimmen, dass sie nach Art eines maschinellen Geschehens in bestimmter Richtung ablaufen. (*Maschinentheorie des Lebens.*)

(2) Der Theorienansatz der anorganischen Naturwissenschaft enthält neben Einzelgesetzlichkeiten auch Ganzheitsgesetzlichkeiten.

(*a*) Es sind dies die (schon bekannten) Ganzheitgesetzlichkeiten aller physikalischen und chemischen Wechselwirkung, die 'Gestaltgesetzlichkeiten' ruhender und stationärer Zustände, die nicht in den einzelnen Komponenten des Geschehens schon enthalten sind, und die die Einheitlichkeit der 'physikalischen Systeme' kennzeichnen. Der Lebensvorgang in den Organismen ist ein Sonderfall eines dynamischen Gleichgewichtszustandes mit der Möglichkeit zur Regulation, d.h. zu seiner Wiederherstellung nach Störungen, den Gleichgewichtszuständen anorganischer Systeme grundsätzlich gleichwertig. (*Gestalttheorie des Lebens.*)

Als unerlässliche Ergänzung wird sie die Hilfshypothese aufnehmen müssen, dass die unverhältnismässig häufigen erhaltungsfähigen organischen Systeme mit ihrer unwahrscheinlichen Vielheit gegen zahlreiche Störungen gerichteter Regulationsmöglichkeiten durch besondere 'Mechanismen' der Richtungsbestimmung ihrer stammesgeschichtlichen Entstehung, durch 'Phylomechanismen des organisierten Suchens' (zur Strassen) zustandekommen.

(*b*) Zu den Gestaltgesetzlichkeiten der 'Wechselwirkung' kommen in der anorganischen Natur bisher unbeachtete Gesetzlichkeiten einer Erhaltung der Ganzheit von Gebilden, wie vor allem der Atome, welche die noch unabgeschlossene physikalische Theorie heute nicht berücksichtigt. Der Organismus ist nur Beispiel einer übergeordneten Stufe solcher 'Ganzheitgebilde' der Natur. (*Theorie der Ganzheitgebilde.*)

Die vitalistischen Theorien des Lebens lassen zwei weitere Möglichkeiten zu:

(1) Es gibt für die Organismen, und nur für sie, eine besondere Gesetzlichkeit—und das heisst eine konstante Bedingung—des Gesamtgeschehens, in welche die Einzelgesetzmässigkeiten der anorganischen Natur als Teilgesetzlichkeiten eingehen, ein besonderes Gesetz der Zusammenordnung (der 'Organisation') der physikalisch-chemischen Vorgänge unter noch genauer zu bestimmenden Bedingungen, das auch in der Ordnung fundamentaler 'Teilgeschehnisse' (der Ernährung, Fortpflanzung, Entwicklung usw.) enthalten ist. (*Organismische Theorie des Lebens.*)

(2) Es gibt neben den anorganischen Einzelgesetzmässigkeiten im Organismus einen besonderen, zu jenen hinzutretenden, von aller Naturgesetzmässigkeit prinzipiell verschiedenen, frei gestaltend in das Geschehen eingreifenden Faktor. (*Freiheitstheorie des Lebens.*)

Zwei dieser Theorien fallen aus:

Die Unmöglichkeit der *Maschinentheorie* als Gesamttheorie des Lebens haben die drei bekannten Beweise von Hans Driesch, unbeschadet der gegen sie geltend gemachten Einwände, zweifelsfrei sichergestellt; ihre Voraussetzungen sind den zu erklärenden Erscheinungen, der Ganzheiterhaltung der organischen Struktur wie des organischen Geschehens in ihrer hohen Kompliziertheit geradezu entgegengesetzt.

Die Freiheitstheorie ist überhaupt keine 'Theorie', sondern bedeutet Verzicht auf jede Erklärung. Als Bekenntnis eines grundsätzlichen Nichtwissenkönnens infolge einer alle tatsächlich bestehende Gesetzlichkeit durchbrechenden Ungesetzlichkeit oder Willkür des Geschehens ist sie das Ende jeder Forschung. Mit dem neuerlichen Versuch rein statistischer Ableitung aller Gesetzmässigkeit in der Physik, welcher 'Freiheit' in den letzten Bedingungen jeden Geschehens lässt, darf sie nicht verwechselt werden. Die Entelechienlehre Drieschs, die seine Gegner gerne im Sinne einer Freiheitslehre deuten, ist im Kern als organismische Theorie aufzufassen, wobei wohl seine Redeweise von einem 'wirkenden Naturfaktor', welche Erinnerungen an eine überwundene Kausalitätsauffassung weckte, zu dem Missverständnis beitrug.

Ganzheitgesetzlichkeiten irgendwelcher Art enthält also jede der verbleibenden Theorien. Zur bündigen Entscheidung zwischen den anorganischen Ganzheittheorien und der organismischen Theorie reicht unser heutiges Naturwissen nicht aus. Gegenüber den ersteren vermögen auch Drieschs Argumente nur eine *Unwahrscheinlichkeit* darzutun, dass die hochkomplizierten harmonischen und regulatorischen Lebensprozesse sich jemals restlos als physikalisch-chemische Gleichgewichtserscheinungen ableiten lassen. Gegen die ergänzende Erklärung ihres stammesgeschichtlichen Zustandekommens muss gesagt werden, dass hier nur eine Entwickelung der *Differenzierungsmannigfaltigkeit* der Formen und Funktionen, nicht der Form- und Funktionserhaltung selbst, Gegenstand der Erfahrung ist, dass die Phylogenetische Herleitung dieser Form- und Funktionserhaltung vielmehr rein spekulativ bleibt, und dass die unbestimmte Wahrscheinlichkeit der Zufallsentstehung von 'Phylomechanismen des organisierten Suchens' jedenfalls keine Erklärung bedeutet. In die Wagschale der organismischen Theorie mag noch die grössere Wahrscheinlichkeit fallen, dass ihre Voraussetzungen denen gleichartig sind, mit welchen die Psychologie die Erklärung des seelischen Lebens zu bewältigen sucht, das mit dem organischen Leben so innig verbunden ist; der Vorzug der Einheit der Ordnung für die Gesamtnatur bei den 'mechanistischen' Theorien würde ausgeglichen durch Einheit der Erklärung im biologischen und psychologischen Gebiet: aber auch hier erheben sich die noch weitergehenden Ansprüche der Gestalttheorie, die man als Forschungsprinzip gelten lassen muss. Die bisher angestellten Unwahrscheinlichkeitserwägungen *gegen* die 'mechanistischen' Theorien können subjektiv hohen Überzeugungsgrad haben, sind aber für die Wissenschaft nur von vorläufigem Gewicht. Aber auch die Wahrscheinlichkeitserwägungen *für* diese Theorien sind nicht durchschlagend. Es würde sich ja auch kein Physiker mit der Wahrscheinlichkeit begnügen, dass sich etwa die Strahlungserscheinungen einmal ohne quantentheoretische Annahmen erklären lassen werden, sondern er verlangt eine Sicherung des

Bestehens der hierbei gemachten Voraussetzungen und eine wirkliche Durchführung der Ableitungen für die erfahrungsmässig vorliegenden Fälle. Die Möglichkeit einer mathematischen Durchführung diesser Ableitung wie in der Physik erscheint freilich für die Biologie unerreichbar.

Der Kampf um die Theorie des Lebens erschöpft sich heute noch zu sehr in Versuchen zur Widerlegung der Mechanistik oder des Vitalismus. Für die *Forschung* kommt neben der grundsätzlichen Rechtfertigung einer Theorie nur ihre *Fruchtbarkeit*, ihre Bewährung als methodisches Prinzip in Betracht. Es kommt darauf an, welche Erfahrungseinzelheiten von ihrem Ansatz aus—ihren Einzelgesetzmässigkeiten oder Ganzheitgesetzmässigkeiten—wirklich erklärt, welche neuen Fragestellungen und Forschungsmöglichkeiten eröffnet werden.

Da die *Theorie der Ganzheitgebilde* als blosse Möglichkeit völlig auf die Zukunft verweist, bleibt heute einerseits die *Gestalttheorie*, die Auflösung der Lebenserscheinungen in physikalisch-chemische Wechselwirkungen, d.h. Ganzheitbeziehungen von *Resultanten* der Einzelgesetzmässigkeiten (entsprechend der herrschenden Gleichgewichts-Auffassung der Ganzheit der Lebensgemeinschaften oder Biocönosen); andererseits die *organismische Theorie*, welche besondere Ganzheitgesetzlichkeiten der Lebensvorgänge als hypothetischen Ansatz für die Forschung zu formulieren sucht. Die erstere hat schon beträchtliche Teilerfolge aufzuweisen, in R. Goldschmidts 'physiologischer Theorie der Vererbung' auch einen neuen Versuch zu einer Gesamttheorie der Formbildungsgeschehnisse; Einzeltheorien organismischen Charakters zeigen ausser in den Untersuchungen Drieschs erste Erfolge z.B. in den Arbeiten von A. Gurwitsch und P. Weiss, in denen, in verschiedener Weise, der Begriff des morphogenetischen 'Feldes' Verwendung findet. Dieser aktive Wettbewerb um die Aufhellung der bestehenden Ordnung ist wertvoller als jeder Versuch einer gegenseitigen Wegverbauung. Als methodische Prinzipien widersprechen sich diese beiden Theorien nicht: was Physik und Chemie erreichen, erscheint der organismischen Theorie als unerlässliche Voraussetzung für den in der Ganzheitgesetzlichkeit des Organismus gegebenen Zusammenhang, was organismische Hypothesen als Ganzheitgesetzlichkeit eines Lebensvorganges formulieren, erscheint den mechanistisch gerichteten Forschern als Restproblem, das der genaueren Bestimmung bedarf. Der Weg der Erfahrung ist ein mühseliger und langer Weg; das ihn überfliegende ungeduldige Streben nach Endgültigkeit der Entscheidung über die Berechtigung einer Theorie führt über die Grenzen der Wissenschaft hinaus.

Für eine die jeweils erklärbaren Sachverhalte überschreitende, alle Probleme der Wirklichkeit, auch die Wertprobleme des Menschendaseins umspannende, stets hypothetische *Deutung*, mag man sie nun ‘Metaphysik’ nennen oder nicht, ist die *Entscheidung* zwischen ‘mechanistischer’ und ‘vitalistischer’ Auffassung mit all ihren Konsequenzen für seelische und geistige Tatbestände notwendig und bedeutungsvoll. Für die *Forschung* kann sie nur die Ausgestaltung ihrer Arbeitshypothesen bedingen. Die Philosophie hat ausser jener auf dem Grunde des Wissens aufbauenden Wirklichkeitsdeutung die Aufgabe, Wissenschaftslehre oder Ordnungslehre zu sein, d.h. die gegenständlichen und logischen Voraussetzungen der Forschung zu zergliedern, das Verhältnis von Kennzeichnung und Erklärung im ganzen wie im einzelnen aufzuhellen und den Sinn für Unbefangenheit der Kennzeichnung und für vorurteilslose Prüfung der Grundlagen brauchbarer Arbeitshypothesen im Aufbau der Theorie wach zu erhalten. Über die Lösung der durch sie geklärten Probleme entscheidet die Arbeit der Tatsachenforschung. Keine dogmatische Voreingenommenheit darf den fruchtbringenden Wechsel der Siege und Niederlagen hemmen, der den kämpfenden Lebensthorien hier noch beschieden sein wird.

LA LUTTE POUR L'ÂME A OXFORD ET A PARIS AU XIV^e SIÈCLE ET SA RÉPERCUSSION A L'ÉPOQUE DE LA RENAISSANCE

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DANS mes travaux précédents sur la philosophie du XIV^e siècle, j'ai tâché d'indiquer les principales sources dont s'inspiraient le criticisme, le scepticisme et le fidéisme de cette époque. Je veux me borner dans la présente communication à parler de la discussion des problèmes pour lesquels on manifestait peut-être le plus vif intérêt. Je me propose de montrer:

1. qu'il n'y avait aucune discontinuité dans la façon de résoudre ces problèmes au XIV^e siècle et à l'époque de la Renaissance;
2. que le fidéisme et le scepticisme du XIV^e siècle avaient un caractère particulier, suivant les auteurs qu'on considérait comme des autorités (Averroès, Alexandre d'Aphrodisias);
3. que l'averroïsme se développait à peu près parallèlement dans la psychologie métaphysique enseignée à Paris et à Oxford, tandis que l'alexandrisme ne prospérait au XIV^e siècle, au début que sur les bords de la Seine et que ce n'est que plus tard qu'il trouva un écho en Angleterre.

Je m'appuie sur des matériaux que j'ai récemment réunis et ne tiens compte des détails déjà connus que dans la mesure où ils peuvent servir à montrer comment le fidéisme du XIV^e siècle et de la Renaissance procède de l'averroïsme et de l'alexandrisme.

I. *Averroïsme.*

A. *Oxford.* J'ai montré ailleurs que Thomas de Wilton continuait à enseigner à Oxford le même averroïsme que Siger de Brabant propageait à Paris . Fitz-Ralph s'écartait de cette doctrine et s'efforçait de donner à l'averroïsme un cachet chrétien par le fait d'identifier l'intellect agent avec Dieu et de lier à ses fonctions la théorie de l'illumination de saint Augustin. Jusqu'ici, on n'a pas réussi à découvrir chez les averroïstes de traces de fidéisme dans la psychologie métaphysique qu'on enseignait à Oxford, néanmoins le fidéisme y était connue depuis le temps d'Ockham et il se distinguait par un caractère très original étant imbue de gnosiologie et de nominalisme.

Ockham ne s'inspire d'aucune autorité en philosophie, il ne suit ni les traces d'Averroès, ni celles d'Alexandre d'Aphrodisias, mais examine d'une façon indépendante la force probante des arguments à l'appui des thèses traditionnelles de la psychologie métaphysique. Il établit toujours une distinction entre les preuves strictes ou *demonstrationes* et les arguments dialectiques ou *persuasiones* d'une part, et la foi de l'autre. Les problèmes concernant l'essence de l'âme sont toujours traités chez Ockham en rapport avec des questions métaphysiques générales. Ainsi dans *Quodlibet* I, q. I., il déclare que si nous ne disposons que de preuves dialectiques et non d'arguments stricts, *demonstrationes*, pour prouver la thèse générale, suivant laquelle toutes choses dépendent de Dieu en qualité de cause efficiente première, il doit en être à plus forte raison ainsi pour la dépendance de notre âme intellectuelle par rapport à Dieu, puisqu'il n'est même pas possible de prouver l'existence de celle-ci. Quoiqu'il admette chez l'homme une triple forme substantielle, dont l'une détermine le corps d'une manière immédiate, tandis que la seconde est la source de la vie psychique sensitive (*anima sensitiva*) et que la troisième passe pour le fondement de la vie intellectuelle (*anima intellectiva*), néanmoins il ne croit pas que nous puissions prouver strictement quoi que ce soit de ce qui concerne l'âme intellectuelle (Quodlibet I, q. 10).

B. *Paris*. Malgré les tendances fidéistes qui leur sont communes, on trouve une différence profonde entre la doctrine d'Ockham et celle de Jean de Jandun. En effet, celui-ci ne connaît que la foi en dehors de l'argumentation stricte, *demonstratio*, et il oppose toujours à la foi les arguments d'Averroès. Aussi voyons-nous disparaître chez lui les preuves dialectiques et un fidéisme prendre une nuance averroïste. Il faut compléter les *Quaestiones* sur le *De anima* par l'*Expositio* jusqu'ici inconnue (MS. Erf. fol. 336), pour se rendre compte qu'en ce qui concerne la psychologie métaphysique, la polémique de Jean de Jandun vise en premier lieu le thomisme.

2. On sait que Jean de Jandun a touché en psychologie à des problèmes nouveaux concernant l'intellect agent, mais ce n'est qu'après avoir consulté le manuscrit conservé à la bibliothèque de l'Université de Leipzig que nous apprenons que l'adversaire qu'il a si souvent combattu dans cette matière, n'était autre que Barthélemy de Bruges, son contemporain, auteur de nombreux traités sur la philosophie et la médecine. Les recherches sur ses traités conservés comme manuscrits, nous permettent de conclure que Barthélemy de Bruges tâchait de concilier l'averroïsme avec la doctrine chrétienne par le fait de concevoir l'intellect agent comme Dieu qui éclaire tout homme.

3. Jean de Ripa. Le cardinal Ehrle a attiré l'attention sur le

fait que l'acte de condamnation des thèses extrémistes en 1347, visait non seulement Jean de Mirecourt, mais aussi d'autres bacheliers de la faculté de théologie à Paris. Le document publié dans le Chartularium mentionne expressément les erreurs d'autres maîtres de Paris: 'articuli fratris Joannis Mirecourt . . . aliorumque Parisius . . : condemnatorum'. Ehrle s'appuie sur une note dans le commentaire de Jean de Bâle, pour affirmer que parmi les condamnés se trouvait également le célèbre franciscain, Jean de Ripa. Cette opinion est exacte, mais on se tromperait si l'on admettait que Jean de Ripa partageait les idées du 'Monachus Albus' en ce qui concerne les rapports entre le libre arbitre et la volonté divine, car l'idée incriminée intéressait plutôt la vision béatifique. Ce qui nous intéresse le plus, c'est le fond averroïste de la doctrine et ses rapports avec les idées de Thierry de Freiberg et de maître Eckhart.

Nous devons encore insister sur le fond averroïste de la doctrine de Jean de Ripa et sur ses affinités avec l'enseignement de Thierry de Freiberg et de maître Eckhart, aussi faut-il examiner la seconde question du commentaire sur les Sentences. On y pose la question de savoir si l'essence divine peut devenir une forme substantielle de l'intellect créé. Avant de la résoudre, Jean de Ripa fait l'éloge d'Averroès, comme on n'en trouve pas de plus chaleureux chez les partisans du Commentateur arabe. Averroès a si bien saisi l'idée péripatéticienne qu'il serait difficile de découvrir une différence quelconque entre son enseignement et celui d'Aristote. Dans la suite, on trouve des distinctions qui ne s'écartent guère de la théorie d'Averroès sur la double vérité. Certaines propositions paraissent les plus probables à la lumière de la raison, néanmoins il faut les considérer comme fausses: rien d'étonnant si l'on ne perd pas de vue que les théologiens eux-mêmes ne trouvent pas l'explication des questions les plus importantes. Comme il s'agit d'exposer la pensée d'Aristote et d'Averroès, il rappelle que d'après ces deux philosophes: (1) l'intellect passif étant immatériel, ne peut se lier au corps pour constituer avec lui un tout substantiel: (2) l'intellect agent identique avec l'intelligence première entre dans l'intellect passif devenant sa forme dans le domaine logique de la connaissance, mais non dans le domaine ontologique de l'être. Dans la hiérarchie des intelligences, l'inférieure est toujours informée par la supérieure dans le domaine de la connaissance et y trouve une source de béatitude. Or, l'intelligence suprême est intelligible en elle-même, et l'intellect passif peut tout connaître. Il est clair par conséquent que l'homme peut participer aux lumières béatifiques de l'intellect agent en vertu de ses propres facultés.

Quiconque connaît la philosophie de Thierry de Freiberg comprendra aisément que Jean de Ripa se borne à peu près à répéter les idées du maître dominicain, à la seule différence près que toute sa doctrine entre dans le cadre du système averroïste. Faut-il ajouter que si chez Eckhart l'union de l'âme avec Dieu s'accomplit dans le domaine ontologique, elle a lieu chez Jean de Ripa uniquement dans le domaine logique.

C. *Italie*. C'est toujours encore dans l'ouvrage de Renan qu'on puise les renseignements sur l'averroïsme du xv^e^ siècle.

Renan a eu raison d'observer, en dépit d'une opinion plutôt répandue, que l'averroïsme padouan n'était pas l'œuvre de Cajètan de Thiène, mais en dehors de cette idée, la plupart de ses affirmations sont fausses. Il est dans l'erreur en prétendant que, grâce à sa situation sociale et à son enseignement, Cajètan a contribué à établir l'averroïsme à l'Université de Padoue, il se trompe quand il affirme que la doctrine de Cajètan était indécise et dépourvue de caractère; à son avis les idées thomistes se seraient disputées dans son esprit avec la pensée averroïste et auraient ainsi donné naissance à un doctrine confuse et manquant de clarté. Selon Renan, Cajètan aurait résumé comme suit ses pensées sur l'intellect: l'âme intellective est le produit d'une création immédiate et a été ensuite infuse à la matière. L'intellect considéré en lui-même est par conséquent engendré et corruptible, mais l'âme humaine envisagée dans l'ensemble de ses facultés est immortelle. (Renan, *Averroïsme*, p. 350.) Il s'ensuivrait que la synthèse de l'âme et du corps donne naissance à l'intellect, destiné à être anéanti au moment de leur séparation, l'âme restant seule immortelle.

Pour pouvoir se rendre compte de la justesse de cette opinion il suffit d'observer que Cajètan donne un triple sens au mot intellect; il signifie d'abord l'âme elle-même, il est ensuite l'intellect agent et l'intellect passif; enfin il équivaut aux actes (*actus intelligendi*) et aux dispositions qui en résultent dans la faculté cognitive. Il est de toute évidence que les actes et les dispositions naissent les uns pour se maintenir, les autres pour disparaître aussitôt. Renan a confondu l'intellect pris au dernier sens, c'est-à-dire comme actes et dispositions, avec l'intellect dans le premier et le second sens, soit avec l'âme et ses facultés. Il en vient à nous montrer ainsi Cajètan, un pied dans le camp thomiste, l'autre dans le camp averroïste. En réalité Cajètan était fort soucieux de garder ses deux pieds dans le camp thomiste.

II. *Alexandrisme.*

A. S'appuyant sur les citations de Guillaume d'Auvergne, d'Albert le Grand et de saint Thomas, le P. Théry a mis hors de doute que dès le commencement du XIIIe siècle, Alexandre d'Aphrodisias a trouvé des partisans dans l'Occident latin. Tous les historiens de la philosophie répètent qu'au temps de la Renaissance en Italie et surtout à Padoue, l'alexandrisme s'est opposé comme rival au courant averroïste; tous ils répètent que Pomponazzi à inauguré une nouvelle époque à Padoue, qu'il a rejeté la forme aride des commentaires pour remonter directement à la pensée grecque et à la vie réelle. A travers tous ces dithyrambes, l'historien voit cependant se poser la question de savoir, si entre le XIIIe siècle et la Renaissance, l'alexandrisme est tellement tombé en désuétude que Pomponazzi ait dû, pour ainsi dire, le ressusciter. On affirmait qu'il en était ainsi, mais c'est parce qu'on ignorait la philosophie du XIVe siècle. Il suffit d'examiner les idées de ce temps, pour se rendre compte que l'alexandrisme s'est maintenu là où l'on ne s'attendait pas à le trouver, soit qu'il vivait dans l'école terministe de Paris, en commençant par Jean Buridan, son fondateur.

1. Il ne faut pas oublier que Buridan a commencé à enseigner à Paris à une époque où Jean de Jandun était engagé dans un conflit aigu avec les autorités ecclésiastiques, à propos du *Defensor pacis*. Il est en tout cas hors de doute que Buridan a étudié assidûment les œuvres de Jean de Jandun; en effet, dans le commentaire de Buridan sur la *De anima* on retrouve certaines passages qui rappellent presqu'à la lettre le commentaire de Jean de Jandun.

Je tiens cependant à attirer l'attention sur une affinité beaucoup plus importante. Il est vrai que dans les problêmes essentiels Jean de Jandun suit Averroès, tandis que Buridan se rallie à Alexandre d'Aphrodisias; malgré cela il y a entre ces deux philosophes une communauté d'esprit assez profonde, puisque le fidéisme apparaît chez l'un et chez l'autre à propos de questions métaphysiques qui intéressent l'âme. Il faut le reconnaître; chez Jean de Jandun on voit dominer un ton étrange d'ironie, dirigée contre ceux qui dans le domaine de la psychologie métaphysique attribuent à leurs arguments la valeur d'une démonstration stricte. Buridan admet au contraire dans les mêmes questions la probabilité du raisonnement et se réclame en dernière instance de la foi. Si donc Buridan combat le scepticisme en théodicée, comme je l'ai montré ailleurs, il devient lui-même fidéiste en psychologie. Comme l'averroïsme a déteint sur la mentalité de Jean de Jandun, de même l'alexandrisme à dominé presque toute l'école de Buridan, de sorte qu'en psychologie, le fidéisme y régnait en maître. Ne pouvant exposer toute la doctrine de Buridan, je me bornerai à citer quelques exemples frappants pour mettre en évidence la tendance dominante chez ce philosophe.

Lorsqu'il envisage le rapport entre l'âme et le corps, il compare la thèse d'Alexandre avec celle d'Averroès et avec la pensée chrétienne. La thèse d'Alexandre et l'idée chrétienne s'accordent en ce qu'elles considèrent l'âme humaine comme la vraie forme du corps. Contrairement à Alexandre, Averroès s'accorde avec la doctrine chrétienne, parce qu'il admet l'immortalité de l'âme. Mais si l'on considère de plus près la thèse chrétienne d'après laquelle l'âme est à la fois forme du corps, immatérielle et immortelle bien que née dans le temps, on ne tarde pas à s'apercevoir qu'on ne peut l'étayer que par des arguments dialectiques et non par de vraies démonstrations. En effet si quelqu'un trouvait à l'appui de cette thèse des preuves découlant de prémisses évidentes, ce serait en vertu d'une grâce spéciale, comparable à celle qui permettrait de prouver les mystères de la Trinité et de l'Incarnation.

Le pensée de Buridan se dessine avec la plus grande netteté quand il reconnaît que la thèse d'Alexandre se réclame d'arguments plus solides que celle d'Averroès, de sorte qu'un philosophe païen serait amené à adopter la thèse d'Alexandre, de préférence à l'idée averroïste. On est encore plus étonné, quand on entend Buridan parler de l'immortalité de l'âme. Pour lui toutes les idées averroïstes constituent un ensemble logique inséparable, tout comme les idées alexandristes. Quiconque admet l'immortalité de l'âme doit admettre qu'elle n'a jamais commencé à exister, qu'elle n'est ni matérielle, ni étendue, ni forme du corps; il doit avouer enfin qu'elle est unique, est commune à tous les individus humains. Par contre, si quelqu'un se place au point de vue opposé et affirme que l'âme meurt avec le corps, il doit, en bonne logique, la considérer comme engendrée et multiple, y apercevoir la forme du corps, et penser qu'elle participe à son étendue. Comme Buridan s'est prononcé plus haut pour Alexandre et contre Averroès, de même ici il se range du même côté. Il termine cette discussion en affirmant que ni la thèse alexandriste, ni la thèse averroïste ne sont vraies, mais que la thèse chrétienne, opposée quoique vraie, ne saurait être prouvée sans avoir recours à la foi et à la révélation surnaturelle.

B. Lorent de Lindores, qui fonda l'Université de Saint Andrews en Écosse, fut un apôtre de l'idée alexandriste en Europe centrale.

C'est lui en effet qui a rédigé sur le *De anima* un commentaire succint dont on se servait à Erfurt, à Prague et à Cracovie. Afin de donner une idée des rapports entre Lindorius et l'école de Buridan, il suffira d'observer que dans la *quaestio* sur l'âme considerée comme forme du corps que nous avons examinée plus haut chez Buridan [et Nicolas d'Oresme], il compare également la pensée chrétienne avec celle d'Alexandre et Averroès. Il déclare comme de raison, que la foi chrétienne enseigne la vérité sur ce problème, mais il ne s'arrête pas là et se demande s'il est possible d'énoncer un jugement certain sur l'âme humaine en s'appuyant uniquement sur les lumières de la raison. Pour trancher cette question, il distingue entre la raison elle-même et les recherches des philosophes: s'il s'agit de la raison même, les problèmes de la psychologie métaphysique dépassent tellement ses forces que chacun a le droit de s'abstenir de les résoudre. On sait pourtant que des philosophes se sont occupés de ces problèmes et en ont donné des solutions différentes. Si, par conséquent, on veut apprécier la valeur de leurs raisonnements il faut donner la préférence à Alexandre plutôt qu'à Averroès. Au point de vue de la raison, Lindorius se rallierait donc plutôt au camp des matérialistes grecs, quoiqu'il s'empresse de répéter que la foi seule nous permet de connaître la vérité, néanmoins les arguments démonstratifs font ici défaut.

On ne connaît pas encore suffisamment la philosophie enseignée à Erfurt, où Luther a fait ses études. Je suis arrivé à la conclusion au cours de mes recherches que la physique nouvelle des terministes parisiens avait exercé de l'influence sur cette philosophie. Il faut cependant insister sur le scepticisme averroïste qui se manifeste en psychologie. Maître Thierry d'Erfurt établit une distinction entre la philosophie et la théologie, afin de séparer ces deux domaines par une cloison étanche. Quoique l'âme soit corruptible dans son essence, elle ne connaîtra jamais la mort, grâce à la volonté de Dieu. Thierry termine son exposé par une réflexion significative. A son avis on risquerait de compromettre son salut si l'on tâchait de fonder la croyance à l'immortalité de l'âme sur des arguments philosophiques. Aucun fidéiste n'est allé plus loin que maître Thierry à Erfurt, la ville de Luther.

C. Après avoir exposé les idées de l'école de Buridan, nous pouvons passer à Pomponazzi, le représentant classique de la pensée philosophique à l'époque de la Renaissance. Quiconque a étudié le XIV^e siècle, ne saurait ignorer que chaque fois qu'on voulait faire passer une idée radicale en contrebande, on protestait solennellement qu'on ne prétendait rien avancer (*asserendo*) à la légère, mais qu'on entendait seulement proposer une thèse comme un pur exercice dialectique (*disputando*) ou rappeler simplement une idée tombée dans l'oubli (*recitando*). Pomponazzi déclare lui aussi que l'homme ne peut douter un seul instant de l'immortalité de l'âme, car cette verité est sanctionnée par l'autorité de l'Écriture: il s'agit seulement de savoir si cette idée ne dépasse pas les limites de la raison humaine, et si elle nous oblige à avoir recours à la foi et à la révélation.

Pour mettre en lumière l'idée fondamentale de Pomponazzi, je citerai la conclusion définitive à laquelle il aboutit dans le dernier chapitre de son ouvrage *De immortalitate animae.* La question de l'immortalité de l'âme y est traitée comme un 'problema neutrum', en d'autres termes la thèse de l'immortalité ne s'appuie pas sur des arguments décisifs.

Encore faut-il rappeler que Pomponazzi se réclame des docteurs qui admettaient l'immortalité de l'âme sans reconnaître les preuves démonstratives en faveur de cette thèse. Dans sa lettre au cardinal Pierre Bembo, il déclare que le savant prélat n'ignore pas que la pensée développée dans le *De immortalitatae animae* était généralement admise par d'autres docteurs.

D'une part on a accusé Pomponazzi de matérialisme, d'autre part on a tâché de prouver qu'il ne voulait qu'exposer la pensée d'Aristote. Ce que je voulais faire ressortir pour mon compte, c'est l'affinité entre la pensée d'un Pomponazzi et les idées de toute l'école de Buridan, affinité représentée par le fidéisme alexandriste. Je tenais à montrer également que les deux grands courants philosophiques, c'est-à-dire l'averroïsme et l'alexandrisme, qui s'opposaient l'un à l'autre en Italie, aboutissaient finalement au même résultat, soit au fidéisme en psychologie métaphysique.

WHAT IS ALIVE AND WHAT IS DEAD IN THE PHILOSOPHY OF CLASSICAL ANTIQUITY?

J. STENZEL

(*Kiel*)

1. DIE Frage bedarf der näheren Bestimmung. Ich verstehe sie so: Was ist tot, was ist lebendig für die gegenwärtige Philosophie, nicht für die historische Altertumswissenschaft, die diesen Unterschied nicht anzuerkennen braucht; denn diese hat im Gegenteil die Pflicht, den Zusammenhang der Geschichte im Grossen und Kleinen zu erforschen, um der immer richtigeren Erfassung, d.h. der grösseren Lebensmöglichkeit des wahrhaft Lebendigen willen. Also erstens: was ist lebendig für die Philosophie. Zweitens kann ich hier nur die deutsche Philosophie zu grunde legen, in der ich lebe und arbeite. Diese Philosophie befindet sich aber augenblicklich in einer lebhaften Bewegung, die lange verdeckte Probleme wieder ans Licht zieht. Deshalb kann drittens die Frage mindestens ebensosehr sein: was ist noch tot, was ist schon wieder lebendig—obwohl mein Thema mir die scheinbar einfachere Frage nahelegt: was ist bereits endgültig tot, was besteht noch.

2. Diese einfachere letzte Frage ist nur zu beantworten aus einer gleichmässig fliessenden Tradition heraus, in der sich von selbst eine Auslese des Tradierten einstellt, die einfach registriert werden kann. Die griechische Philosophie aber hat in Deutschland eine solche ruhige und stetige Tradition nur innerhalb der katholischen kirchlichen Philosophie, also unter einem ganz besonderen Gesichtspunkt. Die freie Philosophie hat so wenig wie das allgemeinere Bewusstsein der Gebildeten ein gesichertes, auf fester Tradition beruhendes Verhältnis zur Antike überhaupt, und demnach auch nicht zur antiken Philosophie. Die Deutschen haben die Antike immer wieder verlieren und dann sich neu 'erwerben müssen, um sie zu besitzen', und für die Lebendigkeit der Antike gilt das Goethesche 'stirb und werde'. So suchen wir auch heute ein neues Verhältnis zur Antike, bei dem die griechische Philosophie vielleicht sogar wichtiger ist als die anderen Bereiche der antiken Kultur.

3. Da die Antike enger als jede andere mit der Kultur ihres Zeitalters zusammenhängt, so entwickle ich erst kurz die allgemeine Frage: in welchem Sinne kann heut von einer Wiederbelebung, einer Renaissance der Antike überhaupt gesprochen

werden? Dann wird die durch das Thema geforderte engere Frage neu beantwortet werden können: auf welche philosophischen Motive richtet sich besonders die Neubelebung der antiken Philosophie, welche ihrer Züge werden in dem eigenen Leben der heutigen deutschen Philosophie besonders erweckt? Welche antiken Philosophen haben demnach Anspruch darauf, als lebendigste bezeichnet zu werden?

Die allgemeine These, dass wir Deutschen ein neues Verhältnis zur Antike überhaupt erstreben, ist zunächst zu begründen. Die jetzige Generation glaubt wie der Klassizismus des 18. Jahrhunderts wieder an Werte, die in der Antike vorbildlich verwirklicht worden sind; sie übernimmt aber vom Historismus des 19. Jahrhunderts die nähere und schärfere Anschauung der geschichtlichen wirklichen Kulturgebilde. Sie versucht also im Sinne Platons an den εἴδωλα der Antike die ἀσώματα εἴδη zu erfassen; sie abstrahiert aber nicht etwa diese von jenen, noch lässt sie beide unklar in einander verfliessen, sondern sie sucht durch eine volle Hingabe an die concrete Realität der Antike deren Kraft, δύναμις und οἰκεία ἀρετή sich einzuverleiben. Grade daraus, dass diese ‘Idee’ einmal so und nicht anders in unwiederholbarer Einzigkeit in geschichtlicher Existenz offenbar geworden ist, ziehen wir den geheimen Glauben an ihre dauernde Kraft:

> Was einmal war, in allem Glanz und Schein,
> Es regt sich dort, denn es will ewig sein. (*Faust* II.)

Auch religiöser Glaube schöpft grade aus dem Eintritt des Ideellen in die zeitliche Existenz die Hoffnung, die ewige Forderung des Ideellen immer neu erfüllen zu können.

4. Schon dieser Vergleich zeigt, dass hier ein geschichtsphilosophisches Paradoxon vorliegt, das aus einem neuen Bewusstsein und Erlebnis der Geschichtlichkeit unseres Daseins entspringt. Die Bildungsgeschichte aller europäischen Völker wurzelt zwar in der Antike, aber wir können uns selbst nur denken als Gebilde eines bestimmten Volkes, das durch seine geschichtliche Entwicklung und viele andere Einflüsse bestimmt ist; deshalb hat in keinem Volke und zu keiner geschichtlichen Zeit eine Wiederholung, sondern immer nur eine schöpferische Wiedergeburt antiker Gedanken aus einer neuen Lebendigkeit stattgefunden. In jeder Begegnung mit der Antike entspringt eine neue Metamorphose des antiken Geistes. Aber eine Metamorphose setzt eine sich identisch erhaltende Kraft, eine οἰκεία ἀρετή und δύναμις voraus; deshalb liegt in jeder Renaissance das

Bewusstsein, dieser Kraft nicht mehr geöffnet zu sein; daher sucht jede erneute Hinwendung zur Antike in ein echteres Verhältnis zu ihr gelangen, sie sucht die wahre Antike wiederzuentdecken und dadurch den Anfang, den Ursprung der gesamten Bildungsgeschichte unmittelbar zu erfassen. Je weiter die nationelle Besonderung der Völker geht, je schwieriger es scheint, die verschiedenen geistigen Differenzierungen in der Form ihrer Entfaltung zu einander in Fühlung zu bringen, desto wichtiger wird für jedes Volk die Besinnung auf den einheitlichen Ursprung seiner geistigen Geschichte in der Antike, die jederzeit mögliche und notwendige Begegnung mit der 'eigentlichen' Antike.

5. Was ist nun das 'Eigentliche' an der antiken Philosophie, das die heutige Philosophiegeschichte sich zu erobern sucht, und auf welche Weise sucht sie sich seiner zu bemächtigen?

Die antike Philosophie stellt die immer identischen Fragen aller echten Philosophie, die auch uns heut noch bewegen; aber die philosophische Entwicklung, die zwischen der Antike und unsrer Zeit liegt, hat die geistige Lage so verändert, dass bei der Deutung der Antworten, die die Antike gibt, diese Fülle der Zeit in ihrer Entfaltung stets bewusst bleiben muss. Diese Forderung erhebt sich für uns stärker als je, weil wir die Antike nicht mehr in irgend einer zeit- und raumlosen Idealität, sondern an ihrer geschichtlichen Stelle in der Existenz und Essenz ihrer concreten Substanz auffassen wollen. Die dazwischen liegende Entwicklung wird also niemals vergessen oder verleugnet. Das nannte ich das neue Bewusstsein von der Geschichtlichkeit unseres eigenen Daseins. Dieser Zeitraum, den unsere Geschichte erfüllt, kann gleichsam in zwei Richtungen durchmessen werden, und daraus ergeben sich zwei Seiten der Lebendigkeit der Antike.

Einmal kann die von der Antike ausgehende philosophische Entwicklung als ihre Nachwirkung betrachtet werden, und hierbei erweist sich eine mittelbare Lebendigkeit der antiken Philosophie. Wenn nämlich die Fortwirkung der ursprünglichen Gedanken über das Mittelalter bis zur Neuzeit das Thema der Betrachtung wird, so zeigt sich, dass der Zusammenhang der philosophischen Tradition viel stetiger ist als auf anderen Gebieten des Geistes. Wenn die bisher wenig verstandenen, aber geschichtlich sehr wirksamen Lehren des alten Plato und des jungen Aristoteles noch weiter erforscht sein werden, wird sich ihr Nachwirken erstaunlich bestätigen. Zum Beispiel wird der Vergleich der Leibnizschen Philosophie mit der mathematisch orientierten Monadologie des späten Plato bei Berücksichtigung der mathematischen Zusammenhänge für diese Seite des Platonismus eine kontinuierliche, durch eine Reihe geschichtlicher Bildungen vermittelte, also mittelbare Lebendigkeit erweisen.

Aber grade die Einsicht in diese Metamorphosen der antiken Gedanken, die dauernde Wandlung etwa der Begriffe Eidos, Idea, Sein und Werden, Einheit und Ordnung, erzeugt notwendig die Gegenfrage: was war ihr anfänglicher Sinn in der antiken Philosophie selbst? Diese Frage wird heute nicht mehr naiv und leichthin beantwortet durch Angleichung an das, was die Gegenwart dafür halten würde, sondern wir erkennen aus der Einsicht in den Abstand eine neue und schwierige Verpflichtung verstehender Interpretation an. Wir haben in dieser ein Mittel, durch alle die Metamorphosen hindurchzuschauen; denn wir sehen in den Metamorphosen die bisherigen Lebensäusserungen der Antike und wissen, dass unser Denken von ihnen bestimmt ist, wir verachten und ignorieren sie nicht, weil sie dann am sichersten uns die Antike verdecken müssten. Mit diesem, zur Energie der Interpretation verpflichtenden Vorbehalt stellen wir uns nun unmittelbar der Antike gegenüber, und setzen uns in unseren philosophischen Absichten unmittelbar auseinander mit der Einfachheit und Grösse der ursprünglichen einheitlicheren griechischen Gedankenwelt. Bei der geschichtlichen Herkunft des Späteren aus der in der Antike entwickelten Erkenntnismasse kann kraft innerer Verwandtschaft alles spätere Denken auf jeder Stufe der Entwicklung sich unmittelbar verstehen mit dem alten, und dieses Verständnis erschliesst sowohl das Alte neu wie es dem Neuen zu grösserer Klarheit über sich selbst verhilft. Dies ist die zweite, die unmittelbare Lebendigkeit, die von der antiken Philosophie ausgehen und auf uns wirken kann. Es leuchtet sofort ein, dass für die wissenschaftliche Philosophiegeschichte die erste und die zweite Form der Lebendigkeit wesensmässig mit einander verknüpft sind—eine Analyse des hermeneutischen Verstehens könnte diese Zusammengehörigkeit leicht bestätigen.

6. Mehr als alle früheren Zeiten sind wir heute durch die Entwicklung der Philosophie und Altertumswissenschaft in der Lage, die echten Motive der griechischen Philosophie zu entdecken, und desto grössere Wirkungen könnte auf Grund dieser Erkenntnis das gegenwärtige Denken von dieser richtiger gedeuteten, also für uns wirklicheren, tiefer in ihrem concreten Sein verwurzelten Antike erfahren. Und so könnte die antike Philosophie auf jene doppelte Weise lebendig sein. Tot dagegen wäre

alles das, was entweder noch nicht in seiner Wirksamkeit auf die folgenden Zeiten erforscht und erkannt ist, oder das, womit wir heute unsere eigenen, sich uns besonders deutlich darstellenden Gedanken nicht mehr in Beziehung zu bringen vermögen. Gibt es dies? Für den, der auf das Ganze der Geschichte blickt, schwerlich. Wohl aber dürfen und müssen wir zeigen, was von der antiken Philosophie besonders und unzweideutig 'lebendig' ist in jenem zweiten Sinne, dass eine Klärung unserer gegenwärtigen philosophischen Probleme von ihm erwartet werden kann.

7. Ein solches Urteil über Einzelnes hat nur dann wissenschaftlichen Wert, wenn es zugleich seine Begründung in sich trägt. Es sollen nun allgemein als Träger ausgezeichneter Lebendigkeit diejenigen Philosophen bestimmt werden, die selbst zum Bewusstsein der Geschichtlichkeit des Daseins gelangt sind, wie wir sie in diesem ganzen Vortrag an der Antike entwickelt haben. M. a. W. diejenigen Denker werden immer im Mittelpunkte unseres Interesses stehen, die mit voller Klarheit sich zugleich als die Erben einer zusammenhängenden geistigen Entwicklung und als die verantwortlichen Interpreten der diese Entwicklung tragenden ἀσώματα εἴδη gefühlt haben. Damit ist Plato und Aristoteles bezeichnet. Wir haben, glaube ich, die von allen Seiten anerkannte wissenschaftliche Aufgabe, Plato als den synthetischen Denker, den συνοπτικός, nicht nur der Breite der Wissenschaften gegenüber, sondern auch der Tiefe der Geschichte gegenüber zu verstehen. Plato reproduziert nie einfach frühere Lehren, weder den Eleatismus und sein unverlierbares ihn dauernd beschäftigendes Problem des Seins, noch den Heraklitismus, weder die Sokratik noch den Pythagoreismus, der als Träger des mathematischen Einschlags in der Ideenlehre uns heute immer wichtiger wird. Die Scheidung zwischen dem geschichtlich pythagoreischen Gehalt gewisser Dialoge und der kritischen Stellung Platos zu diesem Inhalt, die die englische Forschung zu weittragenden Thesen veranlasst hat, sehe ich als einen wichtigen Ansatz zu dem Ziele an, den geschichtlichen Prozess, der hinter den platonischen Dialogen sich vollzieht, zum Zweck einer Deutung ihrer philosophischen Absicht zu erfassen. Was in diesem kühnen Ansatze von einer Seite her deutlich gemacht wird, ist die Übereinanderlagerung verschiedener Schichten im platonischen Werke selbst. Deren reinliche Abhebung ist desto schwerer, je mehr Plato synthetischer Philosoph, je mehr er überhaupt Philosoph ist, denn in diesem Falle ist alles Frühere um- und eingeschmolzen zu der eigentlichen und eigenen Lehre.

Es scheint, dass jede analytische Behandlung Platos zwar unumgänglich notwendig und fruchtbar ist, aber nur dann, wenn sie sich ihrer Grenzen bewusst bleibt. So stand es mit der analytisch versuchten Scheidung der echten und unechten Werke im 19. Jahrhundert, mit der zeitlichen chronologischen Auseinanderlegung seiner Entwicklung, und so wird es auch mit der schwierigsten Analyse der inneren Schichtung der Gedanken sein. Sie ist notwendig, um die Synopsis in ihrer ganzen Kraft zu erkennen, die jenes unvergleichliche Ganze, jenes ζῷον ἔμψυχον des platonischen Werkes geschaffen hat.

8. So stellt sich in Plato selbst die Aufgabe der abendländischen Philosophie wie an einem Paradeigma dar, an dem wir die in jeder Generation neue Form dieser Aufgabe begreifen können. Eine Lösung wie sie Plato dieser Aufgabe geben konnte, ist nur an einer Stelle der abendländischen Geschichte möglich und sinnvoll gewesen. Diese vollkommene Einschmelzung des geschichtlichen Gedankengutes konnte nur an dem Übergange geschehen, an dem die dichterische Formung philosophischer Gedanken sich mit der sachlich-wissenschaftlichen Verantwortlichkeit des erkennenden Philosophen noch einigen liess. Alle späteren Versuche, Erkenntnis in dichterischer Form zu gestalten—ich denke etwa an die dichterische Gewalt der Hegelschen Phänomenologie, an Goethe, an Nietzsche—bezeugen zwar das innere Bedürfnis der Philosophie nach einer totalen Formung, die immer mehr nur dem ästhetischen Gestalten vorbehalten wurde, aber sie zeigen doch alle, dass die formaldichterische Totalität nur durch eine Beschränkung des ganzen Bestandes der Philosophie erkauft wird. Für Plato allein erwuchs der Gedanke der dichterischen Formung der Philosophie organisch aus der concreten Lage seines Volkes und seines Zeitalters. Weil die Dichter bisher die Erzieher des hellenischen Volkes gewesen waren, nunmehr aber diesen Beruf nicht mehr erfüllten, unternahm es Plato, das grosse Mittel der neuen Erziehung, das die alte gesprengt hatte, die wissenschaftliche Erkenntnis, in das Ganze seiner Bildungsidee in dieser Form hineinzustellen. Es ist die unvergleichliche Leistung Platos, die Wissenschaft bei dieser Einbeziehung nicht entstellt, ihre Exaktheit nicht gemindert, sondern umgekehrt—wenigstens für die Mathematik gilt dies—erst ihren streng systematischen Aufbau auf dem Fundamente des Logos begründet zu haben; erst in dieser Form wurde sie für ihn zur Erziehung des Menschengeschlechtes, zur Paideia, tauglich. Auf Wissenschaft in diesem echtesten Sinne wollte er das Wissen

um Staat und Mensch begründen. So wurde Erziehung zur Erkenntnis der Inbegriff seiner Philosophie. Diese Synopsis konnte nur ein Durchgangszustand, freilich der Scheitelpunkt einer Entwicklung sein. Die Entfaltung der Einheit von Wissenschaft, Philosophie und Bildung, als der diesen Mächten entsprechenden menschlichen Haltung, vollzog sich grade aus den Kräften, die Plato allen drei Gebilden mitgegeben hatte. Die Auflösung der dichterischen Form der späten Dialoge, das Problem der platonischen und aristotelischen Lehrschriften, der Schnitt zwischen Paideia und Forschung, den Aristoteles im Prooemion der Schrift *περὶ ζῴων μορίων* vollzieht, das alles mag im Einzelnen die wissenschaftlichen Aufgaben bezeichnen, in deren Lösung die Frage nach der Lebenskraft der griechischen Philosophie zugleich behandelt wird. Aristoteles, als Platoniker erkannt, als verantwortlicher Erbe des platonischen Gutes, ist die einfache und unzweideutige Bestätigung für die wissenschaftlichen Energieen, die im platonischen Werke bereit lagen. Insofern demnach auch die reife Selbständigkeit der Philosophie und der Wissenschaften auf denselben platonischen Genius zurückweist, der ihre Zusammenfassung noch einmal erreichte, zeigt Plato der gesamten abendländischen Philosophie und Wissenschaft immer das ideale Ziel, Einheit und spezialisierte Mannigfaltigkeit zugleich auf ihren eigenen, der veränderten Zeit entsprechenden Wegen wenigstens zu suchen.

9. Diese ideale Forderung an die gesamte Wissenschaft erfährt innerhalb der platonischen Forschung bereits eine erste annähernde Verwirklichung. Denn um den ganzen Sinn der platonischen Lehre zu erschöpfen, ist die Zusammenarbeit des Philologen und Philosophen, des Mathematikers und Rechtshistorikers nötig geworden. Merkwürdig, wie Plato und die Akademie als Gegenstand der Forschung das wieder erzwingen, was in der Akademie schon einmal wirklich gewesen war: Zusammenarbeit der Wissenschaften. Aber auch die verschiedenen Völker fanden sich in der Akademie zusammen. Die wissenschaftliche Arbeit an Plato und das Bild, das sie ergibt, ist, wie wir alle wissen, auch in den verschiedenen Ländern verschieden und von verschiedenen Traditionen und Formen wissenschaftlicher Forschung bestimmt. Aber da der Gegenstand derselbe ist und alles Leben, das von ihm ausgeht, verwandt sein muss—*πάσης φύσεως ξυγγενοῦς οὔσης*—so muss ein wirklicher Ausgleich der Ergebnisse, eine Verständigung möglich sein und deshalb erstrebt werden. Wenn aus der gemeinsamen Arbeit an Plato, einem der Leidenschaft der un-

mittelbaren Gegenwart entrückten und zugleich doch mit dem Gesamtsinn aller Kultur so lebendig verbundenen Denker, wirkliche *ὁμόνοια* entspränge, so wäre dies die schönste Bestätigung für die Lebendigkeit Platos und der antiken Philosophie, die in ihm wie in einem leuchtenden Brennpunkt zusammengefasst ist, und damit ein Beweis für die Einheit der europäischen Paideia.

A DEFENCE OF CAUSALITY

WM. PEPPERELL MONTAGUE

WHENEVER *two phenomena occur together much more frequently than would be expected from their separate frequencies, we infer a causal relation between them.* Thus if I were to draw a card from a pack and you were to make a guess as to what the card was, there would be one chance in fifty-two that your guess would be correct. If you were to guess correctly not once out of every fifty-two trials but once out of every ten we should probably regard it as an amusing coincidence and possible indicative of a causal relationship. While if you guessed correctly three out of every four trials we should certainly infer a causal connexion of some kind between the two events. It is not the mere frequency of conjunction of two events but the extent to which that frequency exceeds what would be the independent joint frequencies that justifies the inference of causal relationship.

Within the world of actual and possible data we thus recognize two kinds of concurrence—casual concurrences in which the frequency does not differ greatly from the product of the separate frequencies of the concurrent phenomena, and a second class of concurrences the frequency of which does differ greatly from the product of the separate frequencies or probabilities of the events that concur.

As to the question of whether we should or should not go beyond the objective data and postulate a transcendent causal power to explain such concurrences of events as greatly exceed in frequency the product of their separate frequencies I advocate making the transcendent postulate for the two following reasons:

First, we have the quality of *enforcement* as itself a datum, though of a peculiar and internal kind. We have the feeling of one experience generating another. The relational essence thus presented may have no existence apart from the moment in which it is presented, but we experience it as we experience our own activity. It is not, for example, like a four-dimensional space or like what colour is to a man born blind. It is a character of which we have 'knowledge by acquaintance'. Consequently, when we postulate a property of enforcement we know what it is that we mean, in the same sense in which we know what it is that we mean when we postulate a mermaid. We may, to be sure, be as much mistaken in inferring the reality of causal enforcement as in inferring the reality of mermaids. But we have no right to exclude *a priori* as false or meaningless either the hypothesis that mermaids are real or that causality is real. Whether they are real in any other sense than as data of our subjective experience can be determined only indirectly and according to probability by appeal to many different experiential situations.

This then is my first reason for refusing to accept the positivistic claim that causal enforcement is an illegitimate category. Before going on to give my second reason I wish to consider briefly the attempt to discredit our experience of the quality of causal enforcement by calling it a merely muscular or kinaesthetic sensation. Such derogatory appellations leave me cold because even if we accept the somewhat dubious psychological theory that all sensations of enforcement are muscular they would not be disgraced by that fact or in any way disqualified as candidates for independent existence in the world of physics. Colours and even shapes may conceivably have no existence except as data in human experience, but you could not prove this merely by calling them retinal sensations. The fact that sensory or relational data are revealed by one or the other of the bodily organs and mechanisms in no sense militates against their claim to objective reality apart from relation to the body. The muscles are not unworthy organs, and if it is by their aid that I get experiences of the qualities of force and power I am the more grateful to them. Like the telescope they can reveal truth without constituting it.

My second reason for believing in the objective existence of causality in nature is the extreme improbability of the alternative to that belief.

Once grant me my first claim that real causality is a possibility, then my second claim that it is an overwhelming probability follows easily. There will now be two possible worlds—one causal the other non-causal—with which we are confronted and between which we must choose. In external appearance the two worlds would be exactly the same. In each world there will be conjunctions of phenomena repeated with enormously greater frequencies than would be indicated by the product of their separate frequencies. But in the world in which the events were independent and lacking in any real causal bonds these repeated concurrences would be outrageous runs of luck, while in the alternative type of world in which the data, instead of being self-sufficient and independent are endowed with real though non-observable causal power, the repetitions of concurrence would be the simple expression of such power. They would be normal and to be expected.

Let us take Hume's famous example of the billiard balls as a typical case of a concurrence of events that is repeated with a frequency that would be out of all proportion to the probabilities in a world lacking causal powers. Billiard ball *a* rolls with a certain velocity up to billiard ball *b*. And at the moment of contact *b* starts off with a velocity which in direction and intensity is the same as that of *a*. That this should happen once is no reason for wonder from any standpoint because it is no more peculiar or specific than any other event that would have filled the ensuing moment. But the chance that in the absence of any internal causal determination the concurrence of *b*'s motion with *a*'s contact will happen not only once but twice, thrice, and a million million times in succession is almost zero. While if, on the other hand, there *is* internal causal determination, the continued concurrence is just what would be expected. The repeated concurrences must be either casual or causal. If the chance that they would occur in a universe in which all concurrence is casual is measured by a fraction that is almost zero the chance that they are occurring in a universe in which there is causality is measured by one minus that fraction which is itself a fraction almost equal to unity. The first alternative is all but impossible, while the second alternative is all but certain. Add to the case of the billiard balls all the cases of routines or repeated concurrences of phenomena in nature and compare for yourselves the relative probabilities of these ubiquitous successions being on the one hand amazing runs of luck in a universe whose data are self-contained and independent of one another, or, on the other hand, normal manifestations of a universe whose data enjoy a real though invisible power to determine one another.

Now against the argument just stated, the following objections may be urged:

First there is the old doubt about the principle of probability itself. Is it merely an expression of our ignorance, and in that case how can we base upon it any claim to new knowledge? Or is it only a measure of subjective belief, in which case its significance would be psychological rather than logical? Or is it perhaps merely a statement of past frequencies, objective indeed and empirically grounded, but hopelessly retrospective and incapable of being used as a legitimate basis for predicting the future except by being supplemented with some such principle as the Uniformity of Nature? I cannot enter into the complexities of the philosophy of probability which are raised by these questions and must content myself with stating that conception of probability which seems to me the simplest and best.

The probability that an event *e* will occur is expressed by the fraction $\frac{E}{E+\bar{E}}$ where E is the number of ways in which (to our best knowledge) *e* can occur and $\bar{E}$ the number of ways in which it can fail to occur. This probability fraction applied to a prospective event is a measure neither of pure knowledge nor of pure ignorance, but of the combination of *disjunctive knowledge of what* the possibilities are with *ignorance as to which* of them will be actualized. Our ignorance of the actuality is minimized by being blended with a knowledge of the possibilities. Thus if I toss up two pennies *a* and *b* the probability of my getting one head and one tail is $\frac{E}{E+\bar{E}} = \frac{2}{2+2} = \frac{1}{2}$. $E = 2$ because there are two ways in which the event *e* can happen (*a* can be head and *b* tail, or *b* can be head and *a* can be tail) and $\bar{E} = 2$ because there are two ways in which the event can fail (both pennies can be heads and both can be tails). There would be no sufficient reason for saying that the event in question was certain or even that it was more likely than not. Nor would there be any sufficient reason for saying that the event was impossible or even that it was less likely than not. Any judgement that departed in either direction from the ratio of the number of possibilities of the event happening to the total number of possibilities comprising both happenings and failures to happen would be arbitrary, and the more it departed the more arbitrary it would be. While if I were to refuse to say anything about the prospective event on the ground that everything in nature is definite and neither probable nor improbable, and that instead of projecting my uncertainty into the objective world it would be better to keep silent—that would be arbitrary also, because it would wantonly and gratuitously leave out of account my knowledge of the possibilities exemplified in our illustration by the two-sided structure of the pennies. Consequently, whoever refuses to abide by the principle of probability and to apply his knowledge of the possibilities for and against a prospective occurrence, is guilty of conduct which cannot be justified without making more arbitrary assumptions than are made by the one who bases his inferences on probability. The principle of probability is the principle of least action (least arbitrary action) in logic. It is the grand device by which ignorant mortals can minimize their ignorance when they cannot remove it.

The universe may be one in which all the laws, routines, or uniformities of nature will hold up to noon of next Thursday or Friday or Saturday. Or it may be one in which a trillionth, a millionth, a third, a half, or any other of the infinity of fractions of those laws will hold up to the above-mentioned times or up to any one of the infinity of other times in the future. That all the laws will hold for all future moments is at best only one out of an infinity of possibilities. We must grant that its chance is as good as any other of the same specificity, just as we must grant the chance that from now on every dealer at a bridge game will deal himself thirteen spades. That is highly improbable, but no more improbable than the precise series of hands which will as a matter of fact be dealt. It is always the improbable that happens. But what is the reason for picking out one horse from an infinity of other perfectly similar horses and backing him to win not just against some other horse but against the whole field? There would be no conceivable reason for such a proceeding except that he was your horse and that you loved him very much. And so it is with the postulate of the Uniformity of Nature in a non-causal universe. There is only a great wish and a great hope that nature's routines will continue and that we may be justified in making our wills and in preparing for the breakfasts of next morning and the eclipses of next summer. But note that if there is but the least chance that causality is real then the Uniformity of Nature is transformed from a paradox of improbability to a virtual certainty. And in place of the shameless impudence of animal faith and hope masquerading in the garb of a logical postulate, we have the firmly grounded inference that nature's repetitions are no longer runs of luck but expressions of causal forces pertaining to each event in its own right irrespective of place and date as such. The crux of my case is the assumption that there is at least the possibility of causal power in nature. If there is even that bare possibility, be it as antecedently improbable as you like, then the fact of nature's routines transforms it into an overwhelming probability. For the chance that those routines are causal is one minus the chance that they are casual. The only alternative to the hypothesis that causal power exists is the hypothesis that nature's laws are stupendous runs of luck.

IS THE GROUND OF POLITICAL OBLIGATION ALWAYS ONE AND THE SAME?

W. MACMAHON BALL

BEFORE attempting an answer, it may be well to draw out the implications of the question. The word 'political' is important. We are not asked to discuss the general obligation of the individual to society, but the specific obligation of the citizen to the state. The state is an association, not a society. It must be distinguished both from the nation community and from associations like the church or trade union. It may be held that obedience to the state can never clash with obligation to society, but such a position must be demonstrated, not assumed. The wide term 'political obligation' may include a great variety of civic duties, but the test case of obligation occurs when the citizen is confronted with an enactment from which his moral judgement dissents. Hence, for simplicity, it is best to treat political obligation in terms of the problem of political obedience. This is not to identify the state with the government, or to suppose that the only function of government is to issue commands. It is simply to select the type of situation in which the problem of obligation arises in its most acute form.

Is, then, the ground of obedience always one and the same? We are not discussing whether obedience is always right, but whether obedience, when right, is always right for the same reason.

In the past, philosophers and rulers have attempted to select a single factor upon which to base the obligation of obedience. They have claimed that the government, just because it is the government, must be right, and that the citizen is therefore obliged to obey. Or they have claimed that the citizen must obey, not because the government is necessarily right, but because the maintenance of the existing order, however bad, is always better than the consequences of disobedience. To-day the statement of such views is, in itself, their refutation.

I imagine that the most formidable claim for the existence of a single and unchanging ground of political obligation is bound up with the majority principle of democratic theory. This is the claim that if the government expresses the will of the majority, there is an obligation to obey, not because the majority is necessarily right, but because it is right to obey the majority. It is necessary to expound this claim. Since man is a social creature his good is inseparable from the common good. Men do not form an association for the promotion of the common good in its completeness, for it is difficult to define, and there would never be sufficient agreement upon its nature. They form associations for the promotion of specific goods which they believe to be elements of the common good. Associational activity involves more than social relationships; it involves a common policy directed towards a specific goal. If action is to be united, it must be according to rule, and since it is impossible ever to achieve self-government in the sense of complete accord between the judgement of every individual and the content of every rule, the nearest approach is attained by adopting majority rule. If the association is to work effectively, the members of the dissenting minority must either comply with the majority decision or secede from the association. In voluntary associations secession is always at least theoretically possible, but a distinguishing mark of the state as an association is that its enactments apply to all within its borders, and all are compelled to obey. The dissenting churchman can leave the church, but the dissenting citizen cannot leave the state. If there is some unique ground for obedience to the state, it can only be because the state promotes some unique good. The state may promote many interests, but the function on which its claim to obedience is based is the preservation of order. When, then, it is claimed that the citizen is under an unchanging obligation to obey the will of the political majority, it is not because the majority is necessarily right, and not because there is an inherent rightness in obeying majority decisions, but because, in the case of the state, obedience to a majority decision is the essential condition of the maintenance of an order which is as nearly as possible self-imposed.

What is the validity of this claim? If we are to prove it invalid, it is not enough to show that order, in itself, or that majority rule, in itself, has no ultimate right to the citizen's allegiance, but that order based on majority rule lacks such a right. Nor is it relevant, in discussing the principle, to refer to the practical difficulty of discovering whether, in fact, an enactment of government does express the majority will. It may be at once admitted that the support of the majority is the highest formal qualification which order can possess, but it is only a formal qualification. Order is not merely formal; it secures certain concrete rights.

Hence it is always either good or bad. An order willed by the majority has more likelihood of being good than an order willed by a despot, but that is all. It may be so fundamentally bad in content as to make the good life impossible. Order is only good if it is a good order.

I am not discussing here the right of a government to compel the citizen, but the right of the citizen to disobey. If the government is convinced of the inherent rightness of an enactment, and knows it to be supported by the majority, then it is justified, in principle, in enforcing obedience. Yet, in principle, a citizen may also be justified in disobedience. Since such principles take no account of the concrete situation, there is always the possibility of a clash, and no appeal to principles can eliminate it. I would submit, then, that there is the possibility of circumstances which will justify the citizen in disobedience to a majority decision. We can only deny him such a formal right if we believe that the maintenance of the existing majority rule, however bad in content, is better than the consequences of his disobedience. It is surely impossible to know, *a priori*, what those consequences will be. It is necessary to be realistic about the likely consequences of disobedience and to remember that, as they vary, so the grounds of obligation vary. There will not be a single ground of obligation. Certainly it is easy to state the single formula that the citizen must decide whether the net result of disobedience will be a gain to the common good. This is not a ground either for obedience or disobedience, but a bare statement of the formal principle in the light of which the citizen must decide. In fact, every clash between the moral judgement of the citizen and the enactment of the state must be judged on its own merits.

This is not to claim that the citizen is justified in resisting any enactment which his conscience disapproves. He must remember that a state is not an artificial structure, but organic to the life of society, and that majority rule is the only justifiable form of state authority. He must give full weight to all the goods which his particular state does in fact conserve. He must remember that it is not a question of what is right for an individual living in an ideal society, but what is right for him living in an actual society. Will his resistance result in widespread disorder, and if so what are the likely consequences of such disorder? Finally, he must remember that the onus of proving that resistance is right rests upon him, since the very fact that the enactment represents the decision of the majority provides a prima facie case that it is more likely to contribute to the common good than the decision of a minority. For the existence of a majority decision suggests that the individuals who constitute the majority have to some extent put aside their private interests. All this may be granted, yet in the final analysis the question for the citizen is not the value of *the* democratic state, but the value of *this* democratic state.

In conclusion, the right of the state to the allegiance of its citizens rests upon the degree to which it is in fact fulfilling its moral function. Its right depends not upon what it is, but upon what it does. And the value of what the state does can only be determined by an examination of the whole context of circumstance. As circumstances change, the reasons for obedience will change. The ground of political obligation can never be one and the same.

LE RÉALISME RADICAL

T. KOTARBINSKI

(*Warsaw*)

JE me permets de porter votre attention sur une solution possible de la controverse sur les rapports de ce qu'on appelle le contenu d'une représentation avec l'objet perçu, la solution en question n'ayant, peut-être, pas été prise en considération jusqu'à présent. La thèse qui l'explicite est celle d'un 'réalisme radical' — c'est bien le nom que j'aurais voulu lui voir réservé — et sa formule la plus concise sera: Il n'existe pas de contenus. Ce qu'on entend, ici, par 'contenus', ce sont: taches colorées, pressions, tons, odeurs, etc., ainsi que les ensembles qui en sont composés. En affirmant que les 'contenus' n'existent pas, le réaliste radical ne nie nullement que les objets ne soient colorés, résistants, sonores, odorants; il ne veut nier non plus que les hommes ne voient les objets colorés, ou qu'ils ne sentent par voie tactile qu'ils sont résistants. Par contre, ce que notre réaliste rejette — et il le fait d'une manière nette et péremptoire — c'est la supposition qu'il existe de taches, de pressions ou d'autres entités dont seraient constitués, d'après les idéalistes, les objets perçus. 'Il n'existe pas de *A*' veut dire, ici, autant que: 'Il n'est pas vrai que quelque chose soit *A*', ou bien, pour parler avec plus de précision encore: 'Il n'est pas vrai que pour un x, x soit *A*.' Ainsi la proposition: 'Il n'existe pas de tache' équivaut, par substitution, à dire qu'il n'est pas vrai que quelque chose soit une tache, ou bien qu'il n'est pas vrai que, pour un x, x soit une tache. Donc aucune possibilité de choisir un tel nom individuel que l'on puisse faire un énoncé vrai sur l'objet qui s'en trouverait désigné en disant qu'il est une tache, tout comme l'on fait un énoncé vrai quand on dit au sujet de Jean (Pierre ou Jacques) qu'il est un homme.

Le réalisme radical représente ainsi une position extrême dans la suite des positions possibles sur le terrain de la controverse sur le rapport du 'contenu' de la représentation avec l'objet perçu. Les opinions, on le sait, sont partagées entre deux grands camps opposés que forment les idéalistes et les réalistes. Les idéalistes sont portés à identifier l'objet perçu avec le contenu de la représentation, en affirmant, par exemple, que le citron perçu se compose de qualités sensibles, telles que la couleur jaune, la forme ovale, etc.

Ce qui existe pour eux, ce sont uniquement les contenus, nullement les objets en tant que différents des contenus. Les réalistes, par contre, font la différence entre l'objet perçu et le contenu de la représentation en soutenant la thèse qu'autre chose est le citron, et autre chose le système de qualités (couleurs, formes, odeurs, etc.) lesquelles semblent à l'observateur appartenir au citron. Pour le réaliste il existe non seulement des contenus, mais encore des objets perçus, différents des contenus. Or, ce qui vient d'être dit fait la caractéristique du réalisme dans sa forme modérée. Le réalisme ainsi compris est dualiste et il se prête à des compromis étant donné qu'il reconnaît l'existence des deux mondes dont l'un est celui des contenus et fait, dans un certain sens, le monde intérieur, alors que l'autre, celui des objets perçus, constitue, dans un sens, le monde extérieur; c'est entre ces deux mondes que le réalisme modéré dont il était question se donne toutes les peines du monde à établir un rapport mutuel tout en éliminant à l'avance le rapport d'identité. Or, si l'on veut placer les idéalistes à la droite du réalisme modéré, il faudra placer à sa gauche le réalisme extrême, radical et absolu. Tout comme pour l'idéalisme, un seul monde lui suffit. Cependant, tandis que l'idéaliste ne reconnaît que le monde intérieur (cette expression bien courante nous concédera le partisan de l'idéalisme objectif), le réaliste radical ne reconnaît, par contre, que le monde extérieur, si l'on peut s'exprimer de la sorte. Pour lui le citron est doué de l'existence sans être pour cela un système de couleurs, de formes, d'odeurs, etc.; et ce qui n'existe pas du tout, ce sont les couleurs, les formes, les odeurs, etc.

Les objections que l'on pourrait faire valoir contre la doctrine du réalisme radical tiennent à ce qu'on croit le pouvoir prendre en quelque sorte en flagrant délit. Il ne tient aucunement compte, dit-on, des données immédiates, alors que tout le monde serait d'accord que ce sont justement les 'contenus', mis ici à l'écart, qui, seuls, nous sont donnés d'une manière immédiate. Or, le réaliste radical se permettra de dénoncer cette illusion. A presser le problème de plus près, on devra distinguer, à tout le moins, trois significations différentes de l'expression 'les données immédiates'. Dans la première de ces acceptions, l'existence de l'objet *A* est donnée d'une manière immédiate nécessairement et uniquement si quelque chose semble être l'objet *A* à un observateur naturel, c'est-à-dire à un tel qui n'a pas de doutes provenant d'une autocritique et qui viennent s'ajouter aux réflexions faites sur les conditions mêmes de la perception. Or, ce qui est donné, dans cette première acception du mot, c'est quelque chose de coloré, de formé, de dur, et nullement les couleurs, les formes, les pressions, etc., ce qui fait que l'observateur naturel aura décrit de la sorte ce qu'il a vu, ce qu'il a perçu par voie tactile, etc. — Cette description immédiate aussi bien que juste et qui constitue déjà une défense contre l'objection susmentionnée, l'est encore si l'on passe à l'examen de la seconde signification des 'données immédiates', d'après laquelle est donné d'une manière immédiate uniquement ce qui est réellement perçu, non seulement perçu d'une manière apparente pour n'être, en toute vérité, que présumé. A vrai dire, ce sont les choses colorées, formées, résistantes que nous percevons, et ce n'est qu'une réflexion savante qui nous amène à admettre l'hypothèse de l'existence des 'couleurs', des 'formes', des 'résistances' etc. — Enfin, dans sa troisième signification, l'expression 'donné d'une manière immédiate' signifierait ce dont nous affirmons l'existence par voie de perception de la façon la plus sûre. Or, ce qui est donné, dans ce troisième sens, d'une manière immédiate à l'observateur, c'est plutôt lui-même à qui il semble que les choses observées sont telles ou telles. L'énoncé de la sorte aurait donc la forme suivante: 'Il me semble que, etc.', et il est à retenir que cette proposition n'affirme nullement l'existence d'un 'contenu'. — Une autre objection encore se présenterait à l'adresse du réalisme radical et qui, cependant, ne serait qu'un malentendu contre lequel je crois m'être mis en garde au début même de cette petite communication. Il s'agit d'un auditeur peu attentif qui entend d'une manière erronée la thèse sur la non-existence des contenus en l'identifiant avec l'opinion d'après laquelle rien ne serait coloré, formé, odorant, ou bien rien ne paraîtrait tel à personne. Cette objection peut être liquidée par une simple explication verbale.

Cependant, l'objection la plus sérieuse ne devra se présenter qu'à la suite de l'un des principaux arguments des partisans du réalisme radical. Ceux-ci ne prétendent-ils pas qu'il s'impose comme conséquence de l'analyse du sens même que possèdent les appellations prétendues des éléments des 'contenus', tels que le rouge, le rond, le doux, etc.? Après tout, ce ne sont, dans le langage des gens avisés, que des noms apparents. C'est uniquement par apparence que l'on parle du rouge comme si quelque chose en serait tel; ce sera par apparence que l'on dira, par exemple, 'Le rouge de cochenille est plus vif que celui du sang' ne voulant dire autre chose que 'La cochenille est d'un rouge plus vif que le sang'. Ce sera encore par apparence que l'on dira 'La qualité de rondeur revient à la lune' — et encore on ne le dit que dans un langage très artificiel; toutefois, en prononçant ces mots, on veut dire uniquement: 'La lune est ronde.' C'est la présence des noms apparents se rapportant aux éléments des contenus qui, seule, évoque la présomption portant sur l'existence de ces éléments, c'est pourquoi le caractère illusoire des noms en question une fois mis à nu, la présomption d'existence se trouvera dépourvue de tout fondement. Ici, cependant, l'adversaire du réalisme radical prendra de nouveau la parole pour alléguer que, vue de ce biais, la formule même du réalisme radical devra subir une modification. En affirmant que 'les contenus n'existent pas', cette formule ne cache-t-elle pas un nom d'apparence — 'le contenu' — étant donné que ce mot est illustré par de tels que 'rougeur', 'pression', 'odeur', etc., qui sont des noms apparents notoires? Ainsi le réalisme radical, conscient du caractère représentatif et d'abbréviation de ses propres formules qui viennent d'être citées, se verra amené vers une formule plus concise encore, sans commettre pour cela une déviation quelconque par rapport à sa position véritable. Cette formule, la voici: 'Aucun énoncé portant sur quoi que ce soit n'est vrai s'il a la forme d'une proposition subjective-attributive ou l'attribut serait un nom apparent d'un élément du contenu ou d'un système des éléments d'un contenu; également, il n'existe pas de mots qui soient des noms véritables, et non seulement apparents, pour des éléments d'un contenu, et il n'en peut exister.' Il en résulte que ne peuvent être vrais les énoncés appartenant aux types tels que: '$x \epsilon A$', 'tout $x \epsilon A$', 'quelque $x \epsilon A$', 'Ex, $x \epsilon A$', où A serait, par exemple, 'rougeur', 'ovalité', 'pression', 'douceur', etc. En présence de cette acception, l'objection en question à l'adresse du réalisme radical perd définitivement sa valeur.

Par ailleurs, la doctrine que l'on défend ici se recommande encore par un côté fort qui lui est propre: c'est qu'elle met en état de liquidation le vaste domaine des controverses sur le rapport de l'objet extérieur avec les 'contenus'. A la vérité, pourra-t-on encore parler de ce rapport, alors que l'un de ses membres, l'un des partenaires, se trouve dénué d'existence et que son nom dans la liste de ceux qui participent à l'existence se révèle être un signe vide et qui a été même — ce qui est plus — porté sur la liste d'une manière illégale?

THE STATUS OF SENSE PERCEPTION IN RELATION TO SCIENTIFIC KNOWLEDGE

C. E. M. JOAD

I

IT is often said that recent developments in physics necessitate an idealist approach to the problems of philosophy. This idealist approach applies to the objects not only of scientific study but of sense experience, the considerations which are brought forward to show that the physicist's world is in some sense a product of human reasoning being extended in the work of contemporary scientists somewhat ambiguously to embrace the perceptual world. I believe that this attitude is mistaken and that it is possible, while doing full justice to the implications of modern physics, to retain a realist theory of knowledge.

I propose, in the first place, to summarize some of the relevant considerations advanced by modern scientists.

(1) There is Eddington's insistence on the symbolic character of our knowledge of the physical world. A scientist talks of the aether or the electron; but, if you ask him what such expressions mean, he will point to a number of symbols and specify a set of mathematical equations which they satisfy. That which the symbols symbolize is an unknown x. Science, as Eddington in a famous essay has shown, is concerned not with things in themselves, but only with the measurable aspects of things, and measurability is a category of the human intellect. Physics has created for itself a closed circle, the entities with which it deals being ultimately defined in terms of each other; what lies outside the circle is unknown to physics, and science is incapable of dealing with it. In other words, the measurable aspect of things, to which the results of physics apply, is an abstraction from their total reality; and the physicist's world is an abstraction from the real world. All scientific method involves, it is said, abstractions of a similar kind.

(2) Atomic theory suggests that we never know a piece of matter directly. Matter consists of atoms. Yet we only know an atom in terms of the effects of changes in the alleged atom upon the surrounding spatio-temporal environment. These changes are ultimately analysable into changes in pieces of matter, that is to say in atoms, these changes again being known in terms of their

effect upon other atoms, and so on indefinitely. At no point do we achieve a direct knowledge of matter.

(3) A consideration of the machinery of perception only reinforces this conclusion. A ray of light starting from a so-called material object impinges on the retina, stimulates a nerve centre and starts a series of physical and chemical changes which ultimately reach the brain. Upon their impact on the brain there ensues a mystery, the result of which is the psychological experience of seeing the object. But the proximate physical cause of this experience is a series of events taking place in our bodies. The external object is merely an inference from the fact that the body is being stimulated in a certain way. Thus the material world is the result of a prolonged and possibly precarious set of inferences.

II

What status in the light of these and similar considerations are we to assign to the world which science affirms, and what is their bearing upon the status of the world of sense perception? Two alternative metaphysical hypotheses seem to be possible. (*A*) We may regard scientific knowledge and sensory experience as two different ways of exploring the same reality. Reality is, we shall say, a unity, and scientific knowledge and sensory experience present it to us under different aspects. Or (*B*) we may hold that there are different orders or realms of reality, and that sensory experience and scientific knowledge are, as Plato would say, set over against different objects. On view (*A*), then, the differences will be on the side of the subject; we shall affirm, that is to say, that there are different ways of knowing the same thing; on view (*B*) they will be on the side of the object, and we shall affirm that there is one mode of apprehending different things. The view which seems to me to be on the right lines is view (*B*). I will, however, first state the considerations in favour of the former view, and then the main objections to it.

(*A*). (1) Modern physical science undoubtedly has a Kantian bias tending to look upon the physical world with which it deals as a phenomenal aspect of an underlying reality. The world of science is, it is alleged, rational only because the human mind makes it so. There is no reason to suppose that it exists independently of that mind. It is in no sense the world as it would appear to a being who added nothing to what he perceived and could see things as they are in themselves. The inference is that the world as seen by science is not the world as it really is.

When a modern scientist speaks of the physicist's world (or of the world which physics studies [or selects or constructs], the various expressions being used indifferently) as a closed system, or a frame of reference, or a set of symbolic formulae, it is to be presumed that he refers not to the world of changing data he experiences with his senses, but to the world about which he thinks. Hence the world of physics, like that of mathematics, may be conceived as a way in which reality appears to an intellectual or cognizing faculty.

A. (2) This view accords very well with the monistic implications which underly the writings of modern scientists. While the distinction which they tend to introduce between a noumenal and a phenomenal world is Kantian, their conception of the noumenal world, Professor Eddington's mysterious *x* for example, has Hegelian affinities. There is a tendency to regard it (*a*) as real in some sense in which the sensory and scientific worlds are not; (*b*) as mental.

(*a*) On the assumption we are considering, that reality is a unity such that the same real is revealed to us under different aspects in all types of apprehension, it is difficult not to draw from the statements of modern physicists the inference that scientific knowledge is a confused or partial apprehension of what may be known more clearly and fully, that it is, therefore, an apprehension at a lower grade than e.g. mystical experience, and that the world studied by the former is an appearance only of the reality which is directly revealed to the latter. So much, at least, the insistence on the arbitrarily selective character of scientific method seems to imply. If, for example, Eddington is right in his assertion that science is concerned only with the measurable aspect of things, it would seem to follow that this aspect is only an appearance, one among many possible appearances of a reality that underlies it, and that to take this aspect as independently real, and knowledge of it as giving information about an independent reality is to fall a victim to error. I do not wish to suggest that scientists make this error, if error it is. On the contrary the view that the concrete basis of all scientific abstraction is something that science can never itself grasp seems to be matter of increasing agreement among modern scientists.

Again, the constantly reiterated emphasis on the fact that science, dealing as it does with symbols, has no means of probing to the reality beneath them, implies, although the implication is not always drawn, that the symbolic world being called into existence as it were by the scientist's preoccupation with it, has no reality except what is conferred upon it by the categories of the scientific mind. It is x as it appears to a certain specialized mode of apprehension. The suggestion is then slipped in that the sensory world is an appearance to another similarly specialized mode, an appearance which is similarly an abstraction.

(*b*) There is one kind of apprehension which, as Eddington has pointed out, escapes the symbolic frameworks of sense experience and scientific knowledge. This is the knowledge which we have of ourselves. To penetrate by the methods of science into the nature of a human being is, he says, to reach a merely symbolic description. But we have an acquaintance with the 'mental and spiritual nature of ourselves known in our minds by an intimate contact transcending the methods of physics'. What more natural than to suppose that a non-symbolic knowledge of the nature of any other entity, if we could only attain to it, would reveal it also as mental and spiritual in nature? It is only symbolic knowledge of things that represents them as material. 'Mind', Eddington concludes, 'is the first and most direct thing in our experience; all else is remote inference.' It is a natural corollary that it is in spiritual activity rather than in scientific knowledge that we penetrate through to a reality which, lying behind the changing show of facts upon which our minds feed and the stimuli which release the play of our sensations and feelings, is itself spiritual.

The general conclusion of this line of argument is that reality is fundamentally spiritual, and that science gives us only a symbolic description or presents us with only a symbolical appearance (both phrases are used indifferently) of a reality whose nature is revealed more truly in religious and mystical experience. What is true of scientific knowledge is, it is suggested, true also of sensory knowledge.

Objections to (*A*). I do not feel convinced that the conclusions of modern science do in fact necessitate the sort of view of the universe just summarized. Moreover, there are a number of well-known objections to which any view of this type is exposed. I will mention three of them.

(1) The view that there is one and only one type of reality of which we have different modes of apprehension, or which we know in different ways, implies something perilously like the 'faculty psychology' now generally abandoned. A reality which being one nevertheless appears in different ways, inevitably provokes the question 'Why does it so appear?' And it is difficult not

to answer 'Because we apprehend it with different faculties'. The language commonly employed to describe the difference between intellectual, sensory, and intuitional forms of knowledge does in fact suggest this view.

Now I cannot find in myself any faculty or activity of intuition which is other than a faculty of intellect, which is other again than a faculty of sense perception. I can find only an activity of knowing which acquaints me with different types of object, and which, whether exercised in sense perception, scientific inquiry, or religious experience, remains the same activity throughout.

(2) The view implies that the objects of sense and of science are not real in some sense in which the objects of religious experience are real. Leaving out of consideration the difficulties to which the conception of degrees of reality is exposed, it may well be asked what is meant by saying that the objects of sensory experience are in some sense not real? If I see a red patch, I do in fact see it. As Professor Moore has pointed out, scientific knowledge is itself founded upon and checked by experiences such as that of seeing a red patch. None of the conclusions, therefore, at which it arrives has a higher degree of certainty than the premisses from which it starts. It follows that no conclusions suggested by science can be used to invalidate the authenticity, the directly revelatory character of the experience involved in seeing a red patch. If there is not a red patch there for me to see, or if I do not in fact directly and truly see it, then the arguments upon which the structure of physics is based fall to the ground. It follows that there is nothing in what science has to tell us about the universe to throw doubt upon the authenticity of sensory experience properly interpreted, or to suggest the view that the objects of such experience are not real objects.

(3) If, as most scientists do, we hold a dualistic theory of knowledge as regards sensory experience, we must hold it throughout. If the activity of knowing is other than its object in sense experience, it must also be other than its object in thinking, and other than its object in mystical experience. It follows that the objects of each type of experience are independent of the experience and known in experience as they really are.

(*B*). For these reasons I should incline to the view that in sensory experience, in scientific research, and, I should add, in mystical insight, we are brought into contact with different orders of reality. Each of these orders is real and equally real, and there is no sense in which the worlds to which science or sense perception introduces us are subjective. All types of experience are, in fact, in essence revelatory. The arguments in favour of holding that sense experience brings us into touch with a world of objects other than and independent of our experience of them are those with which realist philosophers have made us familiar. We are directly aware of a world of sense data; physical objects may or may not be known in sensory experience—here opinions differ; red patches certainly are, and they are independent of being known.

What then is the order of reality to which, on this view, scientific objects belong ? It is important to emphasize the point that scientific objects are not experienced by the senses. Nevertheless they are indubitably objects of consciousness; to think about an atom is assuredly to think about something, if only because thinking about an atom is a different experience from thinking about an electron. Unless, therefore, we are to hold that the status of the physicists' world is adjectival in the sense of being a state of the being of the knowing mind, we must attribute to it substantial existence as an object of thought independent of the knowing mind. Yet, I repeat, the physicists' world is not and probably never will be experienced.

It seems convenient at this point to make use of the arguments of the German school of intentional psychology and assign to the world of physics, that is to say, to the entities such as intervals in space-time, electrons, protons, gravitational mass, inertia and so forth of which physicists speak, a status similar to that ascribed by Meinong to his third realm, which is neither mental nor physical, a realm which is usually held to be the appropriate abiding place of universals, and which might, I suggest, be extended to accommodate the world of physics. Our awareness of this world is called thinking, just as our awareness of the physical world is called sense perception and of the world of value aesthetic or religious consciousness. The same mental activity of awareness is, that is to say, in all types of experience directed upon different orders of reality.

LOGIC AND THE RELATION OF FUNCTION TO MECHANISM

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IN the domain of natural philosophy, if there is no problem more pressing, neither are there many more ancient than the one generally felt to arise when a certain two postulates are placed in close juxtaposition. For these two postulates one may find modern wordings, but one must keep ancient headings. They are:

(1) The Democritean postulate: No type of object can be said to exist in nature, if no object of that type could be found in a mechanical image of nature.

(2) The Aristotelian postulate: There are observed to exist in nature objects of types susceptible of no mechanical definition; namely, the types called functional.

One's whole attitude towards life, towards mechanism, towards the relation of life to mechanism would seem to depend on the answer one accepts to a question that inevitably suggests itself the moment these two postulates are simultaneously proposed: 'Can they [one wonders] be simultaneously accepted, or do they not rather imply a logical contradiction?' It is important enough to one's science that one should answer this question one way or the other: yet it is easier to understand the psychology of each historic figure as we answer one way or the other than to be convinced by the historic logic supporting one or the other answer.

One to whom this long debate has brought so little conviction on a subject so important does well no doubt to study the matter anew; but if he offers to communicate his personal conclusions to others, the first point he will be expected to explain to an expert and critical audience is the reason that leads him to hope he may have succeeded, where he considers all others to have failed? This explanation politeness would willingly put before all other matters, were it not that the matters most essential to any brevity in explaining are the very matters with which the argument should begin, were it to begin without preliminaries. It cannot be inconsiderate then to open without explanation when only by so doing can one hasten the moment when one's reason for opening at all will have become readily intelligible.

Could it be shown how anything fit to be called an image of a region of nature could hold within it two details, the one correlated (say) with a certain acorn, the other with a certain pebble, found in that bit of nature, the whole image so modelled that a trained reader of images who had never seen the original could yet recognize in the one detail a functional, in the other a non-functional nature,—I say could this much be shown, would there be any left to doubt the ultimate consistency of the Democritean and the Aristotelian postulates?

But even this very special case (to which we shall confine ourselves) of a general problem of imagery cannot hope for solution until one has some way of gauging the plasticity of the medium in which images of nature are wrought. The measure of this plasticity must, it would seem, depend above all things on the *elements* of which images are supposed to be constructed. Now in the matter of the elements best adapted to the construction of nature images, history seems to have shown a considerable diversity of opinion: atoms, great and small, corpuscles, monads, vortices—what not. Yet the present study offers no novel suggestion when it pretends that there is be but one magnitude attributable to the *ultimate* element implied in any historic construction: and that is, no magnitude at all. There has never been an historic construction, let it have stopped its analysis with what gross volume it would, that did not imply in the course of its development, assumptions, at least statistical, respecting point-conditions within the volumes selected. On the other hand, nothing can be said in terms of minimal volumes with statistically described interiors, that cannot be said in terms of point systems allowing no trace of indeterminateness anywhere within their boundaries; a limited manifold of images, each completely determinate, will always replace a single image comprising manifold regions of indetermination. Now, where the problem one is faced with is to be solved, if solved it can be, in terms of any one of the images comprising a sheaf of permissible images, there is every advantage to technique, and no loss to generality of conclusion, in selecting for one's element in constructing images of nature the mathematical point; i.e. point-locus of definite properties.

So far, nothing novel: there have been plenty of historic images constructed of conditioned points, images that yet found means to differ as widely *inter se* as did the Leibnitzian and the Boscovichian, the Hertzian, to mention only these. Neither should the step we are about to take have anything novel in its inspiration, yet it is surprising how seldom image-makers have paused before beginning their inventions to take this side-step of caution. For our personal problem, however, it is indispensable that we should begin by classifying all possible point-images in terms of such relations as must exist among the points and point-groups of whatever type of image, in whatever system of categories its points be conditioned. The following propositions, each presenting a purely logical dichotomy, will be obviously true, the historical remarks attached to each will be at least meaningful, i.e. verifiable by historical evidence.

1. The conditioned points of a point-image must either be of one genus or of more than one.

The assumption that every permissible image of a natural system may be composed of points of a single genus is consistent with Kant, the Materialists, Spinoza, Leibnitz; inconsistent with Descartes.

2. Defining functional and non-functional to be contradictory classes in a one-genus image, all points must be either functional or non-functional.

The assumption that every permissible image may be composed of non-functional points is consistent with Kant, the Materialists, Spinoza; inconsistent with Leibnitz.

3. In an image all of whose points are non-functional, functional objects could find representation only in groups of points; which groups are then to be classified either on the basis of internal structure alone, or not on this basis alone.

The assumption that in no permissible image composed of non-functional points may functional objects be represented by groups classified on the basis of internal structure alone, is consistent with Kant; inconsistent with the Materialists.

4. If functional groups of non-functional points are not to be classified in terms of internal structure alone, they are either to be classified in terms of the point conditions distributed through some finite region including and surrounding them; or they are to be classified in terms of nothing space can hold.

The assumption that in every permissible image of a natural system containing functional objects these objects may find representation in point-groups, whose functional classification is determined in terms of the distribution of point conditions throughout a finite region including and surrounding each group, is inconsistent with Kant.

It is this last possibility, whose neglect by Kant left him without other means of solving his famous Antinomy of the *Urtheilskraft* than an appeal to an entity posited as beyond representation in any, let alone any finite, space-time system—it is this neglected possibility that the present study proposes to explore. Wherewith I hope it may appear why at no earlier moment than this could this paper's thesis have been intelligibly announced, nor the historical novelty of its proposal demonstrated.

Thesis. Within a finite image constituted of non-functional points, it is possible to construct functional classes of groups of these non-functional points, in such wise that the inclusion or non-inclusion of any given group in a given functional class may be mathematically demonstrated.

Historical note. A natural philosophy implying this thesis will be inconsistent with Kant, in that in its definition of functional objects it excludes reference to any non-spatial, non-temporal entity (*noumenon*); inconsistent with the Materialists, in that it denies that functional classification of groups can be determined by internal group structure alone; inconsistent with Leibnitz in that it composes all permissible point-images out of non-functional points alone; inconsistent with Descartes in that it composes all images out of points of one genus.

The remainder of our study continues the progress backward which has characterized it from the beginning; only, having completed its task of rejecting as useless to its purpose certain old suggestions implied in historic names (*noumenon*, man-machine, monad, soul-point) it now proposes to introduce a new one, though at first by name only: *the producer-product relation.* As preparing the way for this stranger's easier reception, certain classes x, y, &c., are to be constructed. They are classes of point-groups new to this discussion, but as their construction is purely mathematical in method and in the way of material requires no more of the points grouped than that they remain non-functional, it is plain any image-maker working in non-functional point-material (Spinoza, the Materialists, Kant) could have constructed such classes had he had use for them.

Definition. The *x-class* is the class of all point-groups departing from mathematical similarity with a given point-group x_1, by an amount less than some given amount.

Obviously, since the x_1-group may be any collocation whatever of points of whatever description, and since the other members of the x-class are (as one may conveniently say) of the same 'structural type' as x_1, a member of the x-class would be recognizable from its internal structure alone in whatever point-image its points might be found included.

The announced 'product-producer relation' is now introduced in the form of relations connecting such classes as have just been defined. To it, the critic is asked to attach no preconceived meaning, but only the formal properties set down in the following.

Postulate. If the point-group x_1 is *x_1-producer-y_1*, then the point-group y_1 is *y_1-product-x_1*; and conversely.

In terms of these newly introduced but not further defined classes and of a point-system, *S*, within which each class as named is explicitly stated to lie, we frame the following definitions.

Definition. x-probable-producer-y is the class of all *x-groups* of which each shall lie in a system *S*, wherein more than one and less than all groups of genus *x* shall be of the species *x-producer-y*.

Definition. x-probable-reproducer is the class of all *x-groups* of which each shall lie in a system *S*, wherein more than one and less than all groups of the genus *x* shall be of the species *x-product-y, probable-producer-y.*

Definition. Groups-of-reproductive-function is the genus whose species are all those classes of probable-reproducer of which no two shall be of one 'structural type'.

The critic has of course no other immediate responsibility towards the class-definitions just formulated than to see that they are formally consistent *inter se*, sufficiently defined in terms of two named but undefined classes, *x-producer-y*, *x-product-y*, and independent of any third undefined expression (the word *probable* will be seen to have been used consistently with the definitions of an accepted mathematical calculus). If these points be confirmed, the critic is assumed to accept the result attained for no more than it pretends to be; namely, the definition in terms of two undefined but interrelated classes, *x-producer-y*, *y-product-x*, of a new class of point-groups, the genus, *point-groups of reproductive function*.

And now as always in the last backward crawl of an analytic progress, the analyst must throw himself on the mercy of the public; asking it to be patient with his arbitrary utterances till there is time to see in what these may end. The immediately following paragraphs may most profitably be viewed as an irrelevant change of topic until such time as the relevancy of their apparently detached remarks shall have let itself be seen.

Let S_1 stand for a simultaneous distribution of point-conditions occurring at a moment t_1; and let S_2, S_3, &c., be analogously interpreted for their respective moments t_2, t_3, whose dates are of the serial order of their subscripts.

Let three y's lie in S_1, three x's in S_2, two (other) x's in S_3.

Let the three distributions, S_1, S_2, S_3, be three momentary states in the history of a single system S, subject to mathematical equations of such form that conditions at all points being given for any one moment they are determined for any other moment.

When these conditions are assumed fulfilled, one may turn to the three x's of the S_2 distribution, with a view to performing on one of them a certain operation which might for tradition's sake be called a 'virtual replacement'.

If, for ease of expression, I imagine myself to perform the operation, my first step will be to suppose the interior structure of this x so distorted as to throw the resultant structure out of the x-class. The virtual S_2 thus formed would of course determine a virtual S_3, different in structure from the real S_3. In this virtual S_3 what will have happened to the two y-groups originally placed there? Let one of them be found to have been thrown out of the y-class, the other not. I should then have proved the presence of a certain x in S_2 to be a condition essential to the appearance of a certain y in S_3.

Having thus indicated the method by which virtual replacement followed by mathematical calculation could demonstrate a detail in one distribution to be a condition necessary to the appearance of a detail in a later distribution, no one is likely to doubt that within the system S could be established all relations of necessity and sufficiency required to give exact significance to the following statements:

The system S just defined is, in the most classic sense of the term, a *mechanical point-system.*

The most exact definition of the cause-effect relation is that which would imply and be implied by the defining proposition.

Definition. In the mechanical system S the relations hold: S_2 is *cause* of S_3; S_3 is *effect* of S_2.

A point-group composed of points of a mechanical system may be referred to as a *mechanism.* Classification on the basis of 'structural type' may be referred to as *mechanical definition.*

As between a mechanism x_1 of the cause S_2 and a mechanism y_1 of the effect S_3, it is possible to define independently of each other the conditions under which x_1 and y_1 are to be recognized respectively as x_1-*producens*-y_1; y_1-*productum*-x_1.

The relations thus independently defined would enter into a *theorem* (not a postulate) of mechanics.

Theorem. If the mechanism x_1 is x_1-*producens*-y_1, then the mechanism y_1 is y_1-*productum*-x_1; and conversely.

(Please note that the *producens-productum* relation here defined for a mechanical system is as yet brought into no relation whatever with the *producer-product* relation previously introduced as an undefined expression.)

Again, let me unceremoniously change the subject, and turn to another scene. This is a scene from *nature* wherein an experimenter called a *physicist* is discovered locating objects, measuring various 'properties' under which these objects have been classed as his previous experience shall have taught him. Reluctantly I must leave to a footnote any more accurate definition of the sense in which the physicist's measurement of the properties he has assigned to perceptible bodies shall be made to control the range of mechanical point-conditions it is permissible to distribute throughout the interior of each such body. To be sure our thesis is not responsible for the truth, validity, or value as a working ideal of the Democritean postulate; it is enough to point out that one who had accepted that postulate at all must have found reason in experience for assuming at least this much; namely, the points of a region of space having by purely mechanical devices been brought into one to one correspondence with the points of a natural system, there is always at least one distribution of mechanical point-properties throughout the image, such that as certain points are integrated into a mechanism, their properties will compose into integral properties consistent with the physical properties experiment has attributed to that body in nature of which this mechanism is the image.

Further, I think we may assume that a Democritean physicist who had come so far as to accept the foregoing proposition must have become a good enough Kantian to accept the following precepts:

1. One *shall not* say 'that pebble produced this water wave', unless one shall have found in a mechanical image of the nature-region including pebble and wave, a certain two mechanisms x_1, y_1, of which x_1 is x_1-*producens*-y_1.

2. One *must* say 'that acorn is product of this oak' when in all mechanical images of the bit of nature wherein the oak and acorn played their respective roles (i.e. all mechanical images left permissible by the most accurate experiments) one shall have found a certain mechanism x_1 correlated with the acorn and a certain y_1 correlated with the oak, so related as to make of the x_1 an x_1-*productum*-y_1.

We come at last to the crucial test on whose outcome hangs the success or failure of this whole experiment in analysis.

We have shown as a theorem that the same formal relations characterize the *defined* terms expressed in *producens* and *productum* as, by defining postulate, were made to hold for the otherwise *undefined* terms expressed in *producer* and *product*. Nothing formally prevents us from identifying undefined *producer* with defined *producens*, undefined *product* with defined *productum*. If we make this identification, all that was defined in terms of *producer-product* will stand defined in terms of *producens-productum*, a relation itself most rigorously defined within the science of mechanics. But the final achievement of the *product-producer* relation was to furnish complete definition in terms of themselves of *a functional genus*; namely, the genus *point-groups of reproductive function*!

Let us try the identification long enough to consider what will follow. There is this obvious result: functional objects will have been so perfectly defined as mechanisms of recognizable classes that a physicist (coupled of course with a statistician) would know exactly what experiments to perform were a certain object handed to him with the commission, 'Tell us, please, whether there is any reproductive function in this object'. And he would in due time return the answer 'No', or the answer 'Yes, within the limits of observational error'.

All this sounds very triumphant, *but*—we have not yet come to the supreme moment. To be sure we have so defined functional objects that a physicist's actual experience will either let him put a certain object, purporting to be functional, into a mechanical image, or else leave him no choice but to throw it out of nature. Throw it out, that is, as a functional object, it will remain of course a physical one; but all it thus retains is the very constitution that has ruined its chances of functioning: the physicist has shown any functioning on its part to be 'a physical impossibility'.

But what of the objects the physicist is able to fit into his image in a way to *prove* them functional? Well, of them we are forced to say all the things that must hold true of the 'functional classes' we ourselves have made. But are the things we cannot leave unsaid about the 'functional classes' we have made (and made so as to fit individuals of functional nature into mechanical images),—are these things of the sort one is permitted to say of the functional classes to be found in all history and tradition? That, it seems to me, is the crucial test on which must hang our ultimate success or failure.

A few years ago, curious then as always about the manner of our apparently free and purposeful functioning in this vast waste of mechanism, wherein we seem to live and move and have our being, I had the honour to read a paper of somewhat the same title as this one before the American Philosophical Society of Philadelphia. The opportunity seemed a happy one to put to a very learned audience a very child-like question, as though in the spirit of a game. If I allow myself to submit this question to another critical audience, and this time at the very close of a paper, it is because the answer sound criticism shall give is the paper's proper conclusion. The question was this: Of what kind of object can I be thinking, if, calling the object *an x*, I may make these remarks on *x*'s.

(1) The *x*-class is susceptible of no mechanical definition; and conversely, no class susceptible of mechanical definition is an *x*-class.

(2) Laws applying exclusively to an *x*-class are susceptible of no mechanical explanation; and conversely.

(3) By these laws, the past history of an *x* may be explained; its future history cannot be predicted.

(4) This explanation leaves present behaviour undetermined by present surroundings, but

(5) Makes it dependent on a type of finite-future event, and

(6) Makes it dependent on the finite past history of the individual. Finally,

(7) This individual must occupy a finite space-region.

It is almost inevitable that the deeper one is in the history of thought, the more one will think *an x* thus described could be none but some living thing. But the *x* I actually had in mind was none other than the watch in my pocket; and for all of this description of it might have been any member of any functional class constructed as has just been constructed the *genus*, *mechanisms of reproductive function*. For these seven propositions in *x* are, once a new word or two is established in meaning, the formal corollaries of our final definition of any *functional genus* that could ever be found in this world of ours. Of my watch then which functions as time-piece, and functions by virtue of its conformity with mechanism, I did but tell the exact truth in these seven propositions in *x*. But I was thinking of a watch, and I was thought to be thinking of life. I ask, what more could one do for Aristotle than to model him such functional forms as the wisest may take to be living? What more could one do for Democritus than to model him classes of mechanism that *almost* look alive? And finally, what more could one do for oneself, than some day to discover that *some* of these forms, functioning in mechanism, are indeed as alive as he is? But that day cannot be this day, which has already been all too long.

ANTISTORICISMO

BENEDETTO CROCE

(Naples)

Più o meno dappertutto in Europa, e nelle varie sfere della vita intellettuale ed artistica, morale e politica, si nota oggi una sorta di decadenza del sentimento storico, quando non addirittura uno spiccato atteggiamento antistorico.

Questa decadenza e questo risoluto antistoricismo si presentano in due modi diversi, e anzi opposti, che hanno tuttavia comune l'origine, come del pari mostrano la tendenza ad accostarsi, a mescolarsi o a scambiare le loro parti.

Il primo modo, che è il più cospicuo e il più moderno nell'aspetto, riceverebbe forse la sua designazione propria se al suo intero si estendesse quel nome che è di una delle sue particolari manifestazioni letterarie e artistiche, e che fu pronunziato anni addietro per la prima volta in Italia: 'futurismo'. Esso, infatti, idoleggia un futuro senza passato, un andare innanzi che è un saltare, una voluntà ch'e un arbitrio, un ardimento che, per serbarsi impetuoso, si fa cieco; e adora la forza per la forza, il fare per il fare, il nuovo per il nuovo, la vita per la vita, alla quale non giova mantenere il legame col passato e inserire la sua opera sull'opera del passato, perchè non le importa di essere vita concreta e determinata, ma vuol essere vita in astratto o mera vitalità, non il contenuto ma la vuota forma del vivere, che si pone, essa, come se fosse un contenuto. Da ciò l'impazienza, l'antipatia, l'avversione, il dispregio, l'irrisione verso la tradizione storica, che se nei futuristi letterarii si effondevano rumorosamente con le allegre richieste di abbattimento dei monumenti, distruzione delle pinacoteche e musei e bruciamento delle biblioteche ed archivii, e con la professata e consigliata ignoranza di qualsiasi storia, nei futuristi pratici e politici danno parimente segno di sè con la scarsa pietà, l'indifferenza e l'irriverenza non solo verso la memoria di coloro che faticosamente nei secoli formarono quella che ora si chiama l'umanità e che non è un fatto naturale ma una creazione storica, ma anche verso i loro antenati prossimi, i loro nonni e i loro padri; con la incoscienza del lavoro e del valore che si racchiudono nei concetti, nei sentimenti, negli abiti, nelle istituzioni esistenti; con la credenza che il passato sia il morto, laddove, per chi ha occhi per vedere, esso è l'eterno presente e vivente.

Diversamente da questo primo modo di estremo attivismo, il quale, se rigetta la storia passata, sembra ammettere una storia futura — una storia, a dir vero, che non è storia ma una corsa a rompicollo o una ridda da ebbri — il secondo modo di antistoricismo aborre nell'idea stessa della storia il regno del relativo e del contingente, del mobile e diverso, del vario e individuale, e sospira e aspira e si sforza all'assoluto, al fermo, all'uno, a trarsi fuori della storia, a superare lo storicismo, per attingere sicurezza e pace. Rispetto alla vita sociale, questo pone il suo ideale in ordinamenti che sopprimano l'iniziativa individuale, e con ciò la concorrenza, la gara, la lotta, e impongano la 'regola'; sia che la regola propugnata venga desunta da nuove escogitazioni e si configuri in nuovi assetti economici, sociali e statali, sia che la si ritagli da taluna delle età o delle società della storia passata, compiendo una sorta di restaurazione: che è poi la più flagrante negazione della storia, la quale, per la stessa sua logica, esclude le restaurazioni, nè si acconcia a lasciar portar via dei pezzi di sè medesima, staccati dal proprio organismo e dal proprio e integro corso, e dichiarati soli validi e belli ed esemplari. Come l'estremo attivismo nel futurismo estetico, questa concezione ha il suo riflesso in letteratura e in arte nei conati di ritorno al classicismo delle regole, dei modelli e dell'accademia, cioè a una particolare età della storia letteraria e artistica, che, a questo modo esaltata, è insieme falsificata; ovvero nelle ricette modernistiche onde si fabbricherebbero i capolavori di poesia e d'arte, a servigio della società e dello stato, senza bisogno d' ispirazione e di genio personale. Alla germinazione sul terreno storico, al lento maturarsi e al rapido prorompere del nuovo sull'antico, del diverso sul simile, al travaglio onde la fantasia e il pensiero e la volontà si sanno tutt'insieme sciolte e legate, libere e necessitate, ci s'illude di poter sostituire con vantaggio l'azione dell'autorità, che, sopra un terreno sbarazzato dall'ingombro, dall'incubo e dalle seduzioni del passato, disponga e comandi quel che si deve fare conforme alla costante norma ideale, e ne tracci il disegno dirigendone l'esecuzione.

E poichè entrambi i modi, come si è detto, hanno comune l'origine nel comune rigetto della storicità, e si oppongono solo nel concepire diversamente (l'uno in forma anarchica, l'altro in forma autoritariamente disciplinata) l'opera che all'uomo tocca di adempiere, non è meraviglia che di volta in volta gli anarchici, stracchi dell'anarchia, trapassino in autoritarii, i futuristi in classicisti ed accademici, i negatori della divina vita della storia in cattolici e segnatamente in cattolici della Controriforma o del Sillabo, gli scapigliati e scompigliati in restauratori, i demagoghi in gendarmi e poliziotti; o che, all'inverso, gli assertori dell'assoluto, del fermo, dell'uno, stufi dell'immobilità a cui si erano costretti, si ribellino a sè stessi, e prendano a sgranchire le membra irrigidite partecipando alla danza bacchica del futurismo letterario, politico e morale.

Sono conversioni e riconversioni che osserviamo quotidianamente, come è dato quotidianamente osservare gli uomini e i fatti che rispondono di tutto punto ai tipi che abbiamo tracciati, o che ad essi, dal più al meno, si riconducono, o ne portano più o meno l'impronta o ne sono in qualche modo viziati o turbati. Non è il caso, dunque, di dare esempi a illustrazione e prove a conferma di quel che si è detto, non solo perchè gli esempi e le prove, con le censure e le satire che vi andrebbero unite, sarebbero qui poco convenienti, ma anche perchè crediamo che tornerebbero superflui, non sembrando probabile che da alcuno, che si sia guardato attorno e domandato com' è fatto il mondo in cui vive e quali ragioni ideali lo informino, si voglia revocare in dubbio la realtà del misistorismo o antistoricismo del quale si è discorso, e dei due diversi modi nei quali si divide e si oppone e si unifica.

Ma l'antistoricismo, il distacco da tutto il passato e l'aborrimento dal moto storico per sè stesso, il sentimento che la storia vera cominci ora e che ora solo finalmente si esca dalle strettoie e dal tumulto della storia, non è un'apparizione nuova; e, per riferirci ai casi più importanti e più noti, si ebbe già nell'atteggiamento dei cristiani verso il mondo antico e in quello degli illuministi verso tutta la storia fino a loro, quando la *Raison* era sopraggiunta a rischiarare gl'intelletti e a fugare le illusioni e le superstizioni della storicità. Fu esso, in questi casi, così nel cristianesimo come nell'illuminismo, la ripercussione della nascita di un nuovo mondo, di nuovi concetti, nuovo sentire e nuove configurazioni sociali e nuove istituzioni: una ripercussione che era un impeto spinto oltre il segno, ma che pure non potè non spingersi oltre il segno, non potè non farsi a volte violenza, tanto forti erano gli ostacoli che gli toccava affrontare e superare. Onde all'occhio dello storico quelle stesse esagerazioni, quelle crudezze, quelle violenze s'idealizzano e tramandano qualche raggio di bellezza, perchè quell'occhio scorge attraverso il negativo il positivo, attraverso i particolari errori e storture e mali, che furono più tardi corretti o eliminati, la nuova verità e il nuovo bene, che si andavano organando e afforzando, e cercavano di estendere il loro campo d'azione. La barbarie o l'imbarbarimento, — che essenzialmente è antistoricismo, — è stata, per tale considerazione, redenta, non perchè essa non sia barbarie e in quanto tale sempre repugnante, ma perchè viene guardata in relazione alla nuova e più alta civiltà che si forma e giudicata quasi il malanno inevitable di una crisi di crescenza.

Ora il problema che si pone a chi si sforza di comprendere quel recente passato che si chiama il presente, è: se l'antistoricismo, che è stato di sopra descritto, abbia o no un contenuto positivo, se nel suo involucro di stravaganze e di assurdità si annidi un frutto di vero e di bene, se nel suo abbattere e distruggere operi insieme un costruire, e una nuova spiritualità si prepari o ci stia già innanzi senza che noi ce ne siamo accorti o senza che ce ne siamo resi ben conto. Certo, niente accade che non abbia il suo buon motivo, e il reale, come diceva il filosofo, è sempre razionale; ma richiamare questo universale principio, e appagarsi di esso, varrebbe restare nel generico e non veramente rispondere al problema proposto. Il quale non chiede già il generico riconoscimento che la rivolta antistorica di questo o quell'individuo, di questo o quel gruppo sociale, di una più o meno larga parte della società odierna, e magari della sua maggioranza, sia un percorso necessario per l'educazione di certi individui e gruppi e società, per quella faticosa e complicata educazione del genere umano, di cui altresì parlano i filosofi; ma domanda, invece, se essa dia a vedere o lasci intravedere una nuova vita spirituale, una *humanitas nova*, retta da più vigorosi e fecondi e comprensivi concetti. Per un esempio, il Secondo Impero fu, senza dubbio, una necessità, e una necessità razionale, per la Francia, posta l' incapacità di cui la classe politica francese aveva dato prova nel reggere e adattare alle nuove esigenze la liberale monarchia di luglio, e la sua maggiore incapacità e lo smarrimento nell'impiantare, in luogo di essa, la repubblica, il disordine, lo scontento e le paure che suscitò o non frenò; e, come necessità razionale, il Secondo Impero fu anche cosa benefica, non solo per quel che produsse di bene, come si suol dire, materiale, promovendo la produzione economica e accrescendo la ricchezza del popolo francese, ma anche, e sopratutto, perchè si dovè a quella esperienza se la Francia si strinse di poi forte alle istituzioni liberali, e, nella terza Repubblica, impedì fermamente che avessero più effetto i tentati ritorni, che si affaciarono più volte, d'imperi e di monarchie legittimistiche e di clericalismo, e, insomma, fece un gran passo nella sua educazione politica. Ma non per questo si giudicherà mai il Secondo Impero forma politicamente progressiva e capace di svolgimento dall'interno: la qual cosa non credette neppure l'imperatore, Luigi Napoleone, che eccitò e sostenne con la sua azione di politica estera indipendenze e libertà di nazioni e finì col riformare il suo impero autoritario in impero liberale, sostituendo o scotendo le basi su cui era dapprima fondato. C'è — ripetiamo la domanda dopo averla così determinata e schiarita, — nell'odierno antistoricismo, la delineazione, sia pure ancor vaga e indeterminata, di una nuova e più alta vita spirituale?

Questo, per l'appunto, è ciò che non si arriva a scernere, per quanto si aguzzi la vista; ciò di cui non si sente la presenza e la vicinanza nei modi in cui sempre si avvertono la presenza e la vicinanza del nuovo e geniale e creativo, e che sono la trepidazione, la commozione, l'attrazione, e, in una parola, l'amore. Quanto poco amore, ai giorni nostri, nel mondo! e quanto poca gioia, e quanto pigro entusiasmo! Come suonano fiacche e false le corde dell'amore se la rettorica degli energicisti e degli autoritarii si prova, come fa tal volta, a toccarle! e come risuonano invece, aspre e forti, quelle della prepotenza, dello scherno, del sarcasmo, dello stolido e cupo fanatismo! Come frequente si ode il vanto della 'barbarie' e del modellarsi sui barbari, diversamente da quel che accadeva presso i barbari veri, i barbari ingenui, che dell'esser loro erano inconsapevoli e forse, se qualcuno ne li avesse resi consapevoli, se ne sarebbero adontati! L'antistorico cristianesimo apportava la virtù della *charitas*, l'antistorico illuminismo si ammorbidiva di umanitarismo e di *sensiblerie*; ma l'odierno antistoricismo è tutto sfrenatezza di egoismo o durezza di comando, e par che celebri un'orgia o un culto satanico.

Che se da questa prima impressione si passi a esaminare il concetto sul quale consimile antistoricismo si regge, più chiara e determinata si la fa percezione del vuoto che è nel suo fondo. Come si è già mostrato, invece di un concetto unitario, si ritrova in esso la divisione in due e opposti concetti, che non stanno fermi ciascuno al posto suo, ma l'uno entra nell'altro ed esce fuori dall'altro, deponendo e ripigliando la sua sembianza; la qual cosa è sempre grave indizio di nullità logica. Che cosa, infatti, è il primo dei due concetti, quello dei formalisti dell'energia, dei zelatori della vita per la vita, del futuro senza passato, de fare senza ideale, se non la posizione nota e condannata in filosofia, nella fenomenologia dell'errore, col nome d'irrazionalismo, negazione dei valori spirituali? E che cosa è il secondo, quello onde si predica la costruzione o ricostruzione della vita umana scissa dalla vita stessa che è la storia, l' imposizione dall'alto del ritmo della vita, la regola che, invece di essere creata dall'uomo come suo strumento, debba essa creare l'uomo; che cos'altro se non la posizione, nota altresì e condannata in filosofia, del razionalismo astratto, che non nega direttamente i valori spirituali ma li materializza e li rende inerti facendoli trascendenti? Sono due posizioni tante volte in varia veste riasserite, e tante volte criticate fin dall'antichità, che, proprio, non possono prometterci niente di nuovo.

Per questo risultato negativo dell'indagine che si è sommariamente accennata, il problema dapprima proposto cede il luogo all'altro che tien dietro a quel risultato: non più di cercare un contenuto o un valore dove non c'è, ma di cercare per quali ragioni quelle viete posizioni erronee siano riemerse e occupino tanto campo ai nostri giorni. La risposta a quest'ultima domanda non potrebbe aversi piena se non col ripercorrere il corso della storia, e particolarmente di quella del secolo decimonono, e più particolarmente di quella che dall'ultimo terzo di esso va fino ai giorni nostri: donde si vedrebbe come nessun nuovo ideale di vita spirituale e ùmana si sia levato dopo quello che culminò per l'opera congiunta della rivoluzione francese e della filosofia idealistica e storica, ma che quell'idea, nel suo svolgimento, ha incontrato molteplici e gravi difficoltà nello stato degli spiriti e nei nuovi spiriti suscitati dal moto economico e sociale, da dar luogo ad arresti e sviamenti, i quali, per importanti che si stimino, arresti e sviamenti sono e non punto ideali, e se, nelle convulsioni che ne conseguono, a ideali pretendono atteggiarsi, si traducono nelle sopra definite asserzioni d'irrazionalismo o di astratto razionalismo. Sono coteste, senza dubbio, e debbono essere, formule filosofiche, ma sotto di esse stanno fatti ben concreti e corpulenti, si muovono le *dramatis personae* della più moderna lotta politica, quali l'imperialismo e nazionalismo, il socialismo marxistico, lo statalismo che si decora del nome di 'etico', la ripresa cattolica e clericale, e via enumerando. Fatti che preesistevano all'ultima grande guerra e in parte la produssero; ma che la guerra ha esasperati, perché ha provisoriamente indebolite le forze di opposizione e di freno, che li fronteggiavano. Quando si consideri non solo che nella guerra distruttiva è caduto il fiore della gioventù europea, della più coraggiosa, della più generosa, della più intelligente (e ciascuno di noi nella cerchia delle sue relazioni personali conta tristamente queste forze perdute, queste speranze troncate), ma anche che si è coltivata di necessità, per lunghi anni, la disposizione alla violenza, e col comando e con la disciplina soldatesca la desuetudine dalla lotta civile che richiede l'industria e l'inventività individuale; e, di necessità, — e anche oltre la necessità, — si è disfatto o depresso l'aureo abito critico, con tanta severità e delicatezza di cure educato negli anni di pace, e si è dato largamente l'esempio di praticizzare il vero presentandolo a seconda degli interessi come falso e il falso presentando come vero; e si è promossa la credulità verso tutte le fandonie che si credeva utile mettere in giro, e si è favorita l'aspettazione dello straordinario, dell'improvviso, del prodigioso e dell'impossibile; — quando si considerino queste e altrettali cose, la meraviglia non è già che le condizioni mentali e morali del mondo siano quelle che sono, ma che non siano assai peggiori; e si prende a contemplare con gratitudine le tenaci forze di resistenza, che pure sono avanzate dappertutto e che hanno impedito e impediscono il peggio, affidando dell'avvenire.

L'antistoricismo odierno, dunque, par che sia non già un rovescio e un simbolo negativo di nuova sanità, ma impoverimento mentale, debolezza morale, eretismo, disperazione, nevrosi, e, insomma, un'infermità, da superare con la pazienza e con la costanza, come tutte le infermità. Di questo suo carattere d'infermità può recare conferma l'altro fatto che, insieme con l'antistoricismo, accade di osservare, e che intrinsecamente forma tutt'uno con esso: la decadenza dell'ideale liberale, la quale in alcuni paesi ha avuto anche per effetto la formazione di regimi antiliberali ma che si nota un po' dappertutto nelle parole e negli atti, nei libri e nei metodi politici, e più ancora negli irrequieti desiderii. Sentimento storico e sentimento liberale sono, in verità, inscindibili, tanto che della storia non si è potuta dare altra migliore definizione che di 'storia della libertà', perchè solo de questa essa ottiene un senso e solo per essa si fa intelligible. Senza dubbio, nella storia si vedono altresì regimi teocratici e regimi autoritarii, regimi di violenza e reazioni e controriforme e dittature e tirannie; ma quel che solo e sempre risorge e si svolge e cresce è la libertà, la quale in quelle varie forme si foggia i suoi mezzi o le piega a suoi strumenti e delle apparenti sue sconfitte si vale a stimoli della sua stessa vita. E, senza dubbio, anche nel passato la parola 'libertà' è stata talvolta sbeffeggiata o maledetta; ma ciò accadeva da parte di uomini e gruppi sociali che si vedevano minacciati nei loro privilegi e scomodati nelle loro abitudini, o da parte di rozze plebi, istigate dai loro preti; e quel che è singolare, invece, dei giorni nostri è che questo avvenga non da parte di privilegiati nè di plebi, o non solo da questa parte, ma da quella d'intellettuali, procreati dalla libertà, e che non si accorgono di negare con essa sè medesimi: segno aperto, quant'altro mai, di processo morboso. E ancora un'altra conferma si può trarre dal guidizio che si è dato, volgendo per un momento l'attenzione a uno stato d'animo d'importanza minore e aneddotica ma tuttavia significante, che è quello che, altresì in Italia, ha ricevuto il suo battesimo e si è denominato 'Antieuropa'. È evidente che il sentimento storico coincide col sentimento europeo in quanto nell'Europa si concentra la più ricca e nobile storia umana, l'Europa ha prodotto l'ideale liberale e ha tolto su di sè la missione della civiltà nel mondo tutto, e non v'ha in Europa storia di singoli popoli e stati che possa intendersi separatamente, fuori della vita generale dell'organismo di cui sono membra. La guerra stessa, invece di accentuare le differenze, ha fatto spiccare questa comune umanità europea, con comuni virtù e comuni difetti, con comuni problemi. Sradicarsi dall'Europa dopo essersi sradicati dalla storia è, di certo, proposito affatto coerente; ma di quella coerenza che si ammira anche nei pazzi che ragionano.

Pure, giacchè si dice che l'uomo di studio, il filosofo e lo scienziato deve avere l'*esprit douteux* — ed io per mio conto procuro di non rendermi indegno di quel nome che onora — farò l'ipotesi che l'interpretazione storica che ho offerta dell'odierno antistoricismo non colga nel segno, e che io, per poco acume o per aver gli occhi velati dalle dolci immagini del passato e la mente radicata in vecchi convincimenti, non riesca a scorgere il *quid maius* che si viene preparando tra la rozzezza e barbarie di quel movimento, e scambii per depressione quella che è elevazione, per infermità un fruttifero travaglio spirituale, per terrena follia la sacra follia della croce. Data questa ipotesi, posto il caso che una nuova civiltà sia in elaborazione, quale dovere spetterebbe a noi, filosofi e storici, che vediamo per intanto buttar via con disprezzo quanto ha per noi solenne pregio, i nostri concetti sulle vie necessarie del vero e del bene, e sulla dignità e su lavoro umano? Dovremmo, per un *quid maius* presunto e che merita questa volta di essere accompagnato dal *nescio*, aiutare all'opera di distruzione e abbandonare il nostro posto di combattimento per seguire le turbe nemiche verso un segno che non conosciamo?— Formulerò questo quesito in un esempio e con immagini storiche, che forse ne renderanno più facile la comprensione e la soluzione, e domanderò — se, concesso che il nuovo popolo, la nuova storia e la nuova civiltà italiana nascesse dalle invasioni barbariche, vivendo uno di noi, cultori del vero, nel quinto o nel sesto secolo, al tempo dei goti o dei longobardi, avrebbe scelto il suo posto accanto a un Totila e a un Alboino, o non piuttosto a un Boezio e a un Gregorio? A questi ultimi, che continuarono la tradizione romana, e non a coloro che rapinarono e scannarono coi goti e coi fedissimi longobardi, si deve se questi barbari cessarono a poco a poco di esser barbari e, dando e ricevendo, concorsero a generare gl'italiani dei Comuni e quelli del rinascimento.

Per noi, filosofi e storici, lo storicismo — che vuol dire civiltà e cultura — è il valore che ci è stato confidato e che abbiamo il dovere di difendere, tener forte ed ampliare: lo storicismo, nodo del passato con l'avvenire, garanzia di serietà del nuovo che sorge, blasfemato come la libertà, ma che, come la libertà, ha sempre ragione di chi gli si rivolge contro. Federico Hebbel diceva, a proposito della sua poesia non accolta dai suoi contemporanei, che, quand'anche gli uomini non volessero più vestire stoffe di seta, il povero filugello continuerebbe a tirare ed avvolgere il suo filo. E noi, filosofi e storici, potremmo, in ogni caso, dir lo stesso. Senonchè, come l'umanità non può far di meno della poesia, così neppure della storia e delle sue tradizioni e della libertà che le anima e accende gli animi. È questa l'ultima religione che resti all' uomo, l'ultima non nel senso che sia un ultimo avanzo, ma nell' altro senso che è la più alta che si possa raggiungere, la sola che stia salda e non tema i contrarii venti e anzi li riceva in sè e se ne invigorisca: non sfugge e anzi ricerca la critica ed è essa stessa, tutt'insieme, critica e costruzione, pensiero. Coloro che la ignorano o la sconfessano sono, nel mondo moderno, i veri atei, gl' irreligiosi: irreligione e ateismo che non è quel che meno offenda nelle parole e negli atti degli antistoricisti, energumeni del nuovo o vacui restauratori dell'antico. Chi apre il suo cuore al sentimento storico si sente non più solo, ma unito alla vita dell'universo, si sente fratello e figlio e compagno degli spiriti che già operarono sulla terra e vivono nell'opera che compierono, apostoli e martiri, genii creatori di bellezza e di verità, umile gente buona che sparsero balsamo di bontà e serbarono l'umana gentilezza; ad essi tutti mentalmente s'indirizza a chiedere, e da essi riceve, sostegno nei suoi lavori e travagli, e nel loro grembo aspira a riposarsi, versando l'opera sua nell'opera loro.

THE FUTURE OF PHILOSOPHY

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THE object of this paper is to advocate and to explain a certain view concerning the nature of philosophy.

In the past the true characteristics of philosophy have often been distorted and hidden by the hazy darkness of metaphysical systems, but I believe that in our present day they are beginning to stand out very distinctly for all who are able and willing to see them, and I am convinced that all serious thinkers will perceive them and agree about them in a future which may not be very far. This is why I venture to present the following considerations as remarks on the 'future of philosophy'.

But can we speak of the 'true' characteristics of philosophy? Is not the meaning of this word merely a matter of definition or convention and has it not changed continually in the course of the centuries?

It is never worth while to quibble about definitions. I do not want to define, but to understand and to criticize philosophy. We may suppose (and a careful historical and systematic investigation will justify this presupposition) that there is some good reason why the same name of 'philosophy' has been applied to the most diverse mental endeavours and achievements of mankind; that they all have something in common, something of which the philosophers themselves may not be aware, but which nevertheless determines the attitude of their minds and the nature of their thoughts.

The discovery of this common feature would not mean much if it resulted in nothing but an accurate circumscription of the domain to which all philosophical work is restricted; but it appears that by establishing the natural boundaries of philosophy we unexpectedly acquire a profound insight into its problems; we see them under a new aspect which provides us with the means of settling all so-called philosophical disputes in an absolutely final and ultimate manner.

This seems to be a bold statement, and I realize how difficult it is to prove its truth and, moreover, to make any one believe that the discovery of the true nature of philosophy, which is to bear such wonderful fruit, has already been achieved. Yet it is my firm conviction that this is really the case and that we are witnessing the beginning of a new era of philosophy, that its future will be very different from its past, which has been so full of pitiful failures, vain struggles, and futile disputes.

Great truths are rarely discovered all of a sudden; they are usually approached from more than one side and by more than one man. So the truth about the real function of philosophy has in modern times dawned on a number of thinkers who have formulated it in a more or less imperfect way. But the first one who saw it with absolute clearness was, I believe, Ludwig Wittgenstein, and he has expressed it in a perfectly adequate manner. In his *Tractatus logico-philosophicus* he declares:

> 'The object of philosophy is the logical clarification of thoughts. Philosophy is not a theory but an activity. The result of philosophy is not a number of "philosophical propositions", but to make propositions clear.'

These three sentences, to my mind, can do more towards the elucidation of difficult problems than many a book on metaphysics. Any one who has grasped their full meaning and is fully aware of their consequences will realize that the future fate of philosophy depends largely on their being universally understood.

In the statements just quoted we can distinguish two assertions, one negative, and one positive:

(1) Philosophy is not a science;
(2) it is the mental activity of clarifying ideas.

Let us first throw the light of history on these two assertions. Roughly speaking, philosophy seems to have fulfilled four chief functions in the history of thought. In antiquity it has been identified

(1) with science in general, i.e. with the quest for theoretical truth for its own sake;
(2) with wisdom of life.

In later times it has been supposed to furnish

(3) the foundations of all the special sciences (Epistemology), and
(4) the general truths about 'Being' which, it was believed, could not be reached by the special sciences, but only by a synthesis of all their particular truths, or by a specifically philosophical method called 'intuition' (Metaphysics, Ontology).

All these four meanings are still attributed to the term 'philosophy' at the present time.

It will easily be noticed that the second one of the four meanings fits in most naturally with our view. For the wisdom of the sage is not a theory or a science; it is concerned with practical life only and may well be said to consist in the activity of clarifying the notions which enter into the principles of the conduct of life and which always remain obscure to the unwise.

The first one of the four meanings, however, appears to be entirely incompatible with our assertion that philosophy is not a science; in fact it seems to have been nothing else for Thales and Aristotle as well as for Galilei and even more recent thinkers. But this is only an appearance which vanishes as soon as we distinguish between two different meanings of the word 'science'. Firstly, it may denote a theory, i.e. a set or system of true propositions—and it is in this sense that we deny philosophy to be a science—on the other hand, it may signify all the human activities, proceedings, and contrivances necessary for the discovery and proof of those propositions. Now among the activities which constitute science in the latter sense by far the most important are those acts by which the scientific concepts are clarified; it is through them only that the real meaning of all scientific propositions is established. This is exactly the task of philosophy according to our own view; clarifying our thoughts means discovering or defining the real meaning of our propositions. The meaning of a proposition has to be known before its truth can be established: this means that philosophy has to do its work before a theory—a science in the first sense of the term—can be built up. It also means that all science—in the second sense of the term—is essentially philosophic, for its most important business must always be to get the meaning of its assertions absolutely clear. So long as the fundamental ideas have not become perfectly definite the main energy of the scientist must be directed towards the elucidation of their meaning; that is why up to modern times the work of science had to be chiefly philosophical in character; and it makes us understand why it became estranged from philosophy as soon as its basic concepts had grown clear enough. So in this respect our view gives complete account of the historical development. It also accounts for the fact that all great revolutions in science (such as those we are witnessing in contemporary physics, for example) are justly considered to be of philosophical nature and import, for such revolutions always consist in the discovery of a new meaning of the basic concepts (such as time, space, substance).

After these considerations a few remarks only will be necessary concerning the third aspect of philosophy, that of 'epistemology'.

There were good reasons for regarding philosophy as the 'theory of knowledge', for there could be no doubt that philosophy was concerned with an analysis of the fundamental principles and concepts which constitute the basis of all actual knowledge. But it was a mistake to suppose that the results of such an analysis could be expressed by a system of 'philosophical propositions' forming a science called Epistemology. For if there were such propositions we should have to ask for *their* meaning and should require new elucidation, and so forth. As this process cannot go on *in infinitum*, the final clarification cannot be accomplished by any propositions at all, but must be done by those acts which constitute the essence of philosophy. So although there is no *theory* of knowledge, there is the philosophical activity of analysing knowledge. It is only natural that these two should have been confused with one another.

What about the fourth aspect, that of metaphysics? It is evident that our view entirely precludes the possibility of such a thing. Any cognition we can have of 'Being', of the inmost nature of things, is gained entirely by the special sciences; *they* are the true ontology, and there can be no other. Each true scientific proposition expresses in some way the real nature of things—if it did not, it would simply not be true. So in regard to metaphysics the justification of our view is that it explains the vanity of all metaphysical efforts which has shown itself in the hopeless variety of systems all struggling against each other. Most of the so-called metaphysical propositions are no propositions at all, but meaningless combinations of words; and the rest are not 'metaphysical' at all, they are simply concealed scientific statements the truth or falsehood of which can be ascertained by the ordinary methods of experience and observation.

Some of the most renowned philosophers have doubted the scientific character of their own occupation. This appears, for instance, from Kant's famous saying that he could not teach philosophy, but only how to philosophize. He could teach an activity, but not a theory, because philosophy does not exist as a theory. Another instance is Leibniz who, when sketching the plan of the Prussian Academy of Science, did not assign any place in it to philosophy.

I feel sure that sooner or later the view I have been advocating will be generally adopted. What will be the consequences? Will philosophy be looked down upon because it is not a science? Will it be despised because it can never become metaphysics? Certainly not! On the contrary, although not a science itself, it will, much more than ever before, be recognized as the queen of the sciences, dominating them all, because it is their very soul—in fact, there can be nothing of more vital importance to the sciences than the activity without which all their propositions would remain meaningless. Metaphysical tendencies will be entirely abandoned, simply because there is no such thing as metaphysics, the apparent descriptions of it being just nonsensical phrases. What was valuable and beautiful in those tendencies will be recognized as belonging to the field of poetry, and philosophy will be held in much higher esteem for remaining entirely in its own proper sphere.

Philosophy not being a theory, it will no longer be divided into different branches such as ethics, aesthetics, and so on. What is really meant by the word 'ethics', for example, is nothing but the science of moral behaviour; aesthetics is the theory of those human feelings or activities that are connected with certain objects called 'beautiful': and the propositions belonging to these theories form part of the science of psychology. It is very obvious that they have been regarded as 'philosophical' only because all their concepts are still so blurred that they stand in need of continual clarification before they can hope to become scientific. And to a certain degree this applies even to psychology itself.

How will philosophy be studied and taught in the future?

There will always be men who are especially fitted for analysing the ultimate meaning of scientific theories, but who may not be skilful in handling the methods by which their truth or falsehood is ascertained. These will be the men to study and to teach philosophizing, but of course they would have to *know* the theories just as well as the scientist who invents them. Otherwise they would not be able to take a single step, they would have no object on which to work. A philosopher, therefore, who knew nothing except philosophy would be like a knife without blade and handle. Nowadays a professor of philosophy very often is a man who is not able to make anything clearer, that means he does not really philosophize at all, he just talks about philosophy or writes a book about it. This will be impossible in the future. The result of philosophizing will be that no more books will be written about philosophy, but that *all* books will be written in a philosophical manner.

DIE BEDEUTUNG DER SOZIOLOGIE FÜR DIE AESTHETIK

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I

VON der Bedeutung der Soziologie für die Aesthetik sprechen, heisst nicht, die gesamte Aesthetik in Soziologie auflösen; ich zeige nur, dass viele, auch zentrale ästhetische Fragen in soziologischer Beleuchtung ein neues Gesicht gewinnen.

Die philosophische Aesthetik, welche die absolute Schönheit zu ermitteln übernahm, ist heute etwas zurückgetreten. Wohl sucht man noch immer auf Platos und Hegels Pfaden das Schöne als *objektive*, hoch über menschliche Subjektivität hinausgehobene Idealität. Andererseits strebt man in Nachfolge Kants vom *Subjekt* aus das Schöne als apriorische, absolute Geltung zu erweisen. Aber so geistvoll diese Philosophie sein mag, sie beantwortet nicht alle Fragen, mit denen man heute an die Aesthetik herantritt.

In der Gegenwart nämlich ist eine historische und ethnographische Kunstforschung aufgewachsen, die eine ungeheure Fülle ästhetischer Formen zusammengetragen hat, der gegenüber die Absolutheit des Schönen immer problematischer wird. Soweit die wissenschaftliche Aesthetik dieses Material bearbeitet hat, geschah es zumeist nach *psychologischer* Methode, die jedoch den historischen und ethnographischen Relativismus nicht überwand, sondern eher verstärkte. An Stelle des Absolutismus der Platoniker und Kantianer trat ein alle Normen verwerfender Psychologismus, der letztlich in Wertanarchie auszulaufen droht.

Und doch offenbart das ästhetische Leben überall, das darin zwar nicht eine absolute Gesetzlichkeit, aber auch noch lange nicht Chaos herrscht. Vielmehr werden allenthalben *überindividuelle Werte* anerkannt, die sich objektiv in den verschiedenen 'Stilen' offenbaren. Ihre Geltung ist nicht apriori, aber doch auch nicht allein aus der Psychologie der Individuen abzuleiten.

Hier vermag die *Soziologie* zu helfen, um Verständnis für Entstehung und Geltung dieser überindividuellen Wertungen zu schaffen.

II

Die Soziologie bringt in die Fülle der Schönheitswertungen zunächst dadurch Ordnung, dass sie die unterscheidbaren Stile als bedingt in der *sozialen Struktur bestimmter Kulturkreise* erweist. Sie unterscheidet nationale, epochale, ständische Stile, wobei besonders interessant die Überschneidung der verschiedenen Stilbildenden Gruppen ist, etwa das Auftreten verwandter Epochaltypen (des archaischen, des 'klassischen', des Spätstils) innerhalb völlig getrennter Nationalgruppen. Daneben gibt es noch die Stile kleinerer sozialer Gruppen, so in Japan Familienstile, in Europa die mannigfachen 'Kunstschulen' (Prärafaeliten, Nazarener, Worpsweder), deren ästhetische Besonderheiten in ganz bestimmter Form des Gemeinschaftslebens wurzeln.

Mit alledem ist jedoch die soziale Bedingtheit der Stilbildung höchstens festgestellt, nicht erklärt. Aufgabe der Soziologie ist es, die Faktoren bloszulegen durch deren Zusammenwirken jene Stileinheiten sich ausbilden. Die individualistische Lösung, die den ästhetischen Stil souverän von einzelnen Genies diktiert werden liess, ist neuerdings von der kollektivistischen Theorie verdrängt, die jedoch die zumeist sehr komplizierten Tatsachen oft aus einseitigen Prinzipien erklärt. Da soll etwa die Rasse, oder das Klima, oder die Nachahmung oder die Dialektik (das Umschlagen eines Stilextrems in sein Gegenteil) die gesamte Entwicklung beherrschen. Tatsächlich wirken stets viele sehr verschiedene Faktoren zusammen, die man sorgfältig unterscheiden muss.

Ich gliedere sie folgendermassen:

(*a*) *überästhetische Faktoren*, worunter ich die allgemeinen Bedingtheiten der gesamten Kultur verstehe, wie Rasse, Altersphase Klima, Landschaft, innere Gliederung der Gesellschaft usw. Diese Tatsachen beeinflussen das ästhetische Leben in ähnlicher Weise und zu gleicher Zeit, wie sie Religion, Sitte, Wissenschaft usw. beeinflussen.

(*b*) *rein ästhetische Faktoren.* Hiermit meine ich die nur im ästhetischen Leben wirksamen Tatbestände wie künstlerische Tradition, spezifische Kunsttechniken, spezifische Gefühls- und Geschmacksdispositionen, Mode, Neuheit, Einfluss einzelner Individualitäten oder fremder Kunststile usw.

(*c*) *ausserästhetische Faktoren.* Hier ist an die Beeinflussung der Kunst durch andere Kulturzweige, wie Religion, Wissenschaft, Moral usw. zu denken.

Alle diese das ästhetische Leben mitbedingenden Tatsachen wirken jedoch nicht in Abstrakto, sondern hinter ihnen stehen zumeist sehr reale Gruppen, die jene Einflüsse erst zur Geltung bringen. Alles das lässt sich nicht rein psychologisch verstehen, vielmehr muss man stets diese sozialen Hintergründe mitsehen.

III

Die so gekennzeichnete soziologische Problematik illustriere ich speziell an einer zentralen Frage der Aesthetik, der nämlich, ob sie ein *streng autonomes Wertgebiet* sei. Dieses Problem nämlich hat insofern eine soziologische Seite, als die Autonomie des ästhetischen Lebens von gewissen Sondergruppen verfochten wird, die sich als 'Spezialisten' aus der allgemeinen Gesellschaft aussondern und sich gegen jede Beeinflussung durch andere Sondergruppen wehren.

Überhaupt diesseits des Problems bleiben alle Primitivgruppen, bei denen das ästhetische Leben noch garnicht spezialisiert ist. Hier ist alle Kunstübung Sache der Gesamtgruppe; es ist noch nicht möglich, Kunst von Religion, Sitte, Spiel usw. zu trennen. Primitive Musik z.B. wird zumeist von der gesamten Stammesgemeinschaft ausgeführt (ohne Trennung von Musikproduzenten und Publikum) und sie ist nie ein rein ästhetischer Akt, sondern zugleich Zauber, sozialer Brauch usw. Die Frage nach einer Autonomie des Aesthetischen wäre hier ganz sinnlos. Auch im Mittelalter, wo die Künstler zumeist dem Priesterstande angehören, kann man nicht von 'Einfluss' der Religion auf die Kunst sprechen, da zumindesten in der religiöse Kunst Religion und Kunst garnicht geschieden sind.

Die Frage nach der ästhetischen Autonomie wird erst akut in solchen Kulturkreisen, wo sich die Kunst aus der Gesamtkultur herausspezialisiert, d.h. wo, soziologisch gesehen, Kunst Aufgabe einer Sondergruppe wird, und wo andererseits ähnliche Sondergruppen die Pflege von Religion, Wissenschaft, Wirtschaft übernehmen. Diese anderen Gruppen haben nicht produktiv, nur rezeptiv am ästhetischen Lebenteil. Das wäre an sich ein Idealzustand, in dem die Spezialisierung künstlerische Hochleistungen zu liefern vermag, wenn sie nicht zu gleicher Zeit vielfach zu einer *Esoterik* führte, welche ganze Volkskreise von der Kunst ausschliesst. In der Tat entwickelt sich in fast allen Hochkulturen eine Kunst, die Kaviar fürs Volk ist. Das Schlagwort 'L'art pour l'art', wird am besten verdeutscht und verdeutlicht: 'Kunst für Künstler'. Sobald die Kunst sich spezialisiert, setzt auch eine spezifisch ästhetische Entwicklung ein. Besondere Techniken, Geschmacksregeln, Dogmen werden ausgebildet, die oftmals Geheimnisse der Sondergruppen gewahrt werden. Die Künstler und ihre spezielle Gemeinde fühlen sich infolge ihrer Teilnahme an der esoterischen Kunst aus der übrigen Gemeinschaft herausgehoben, sie sondern sich ab von der übrigen Kultur, und so entsteht ein Boden, auf dem die Forderung der Wertautonomie des Aesthetischen zu keimen vermag. So bestand im Mittelalter in fast allen Ländern Europas eine lateinische Gelehrtendichtung, die schon rein sprachlich dem breiten Volke unzugänglich war. Auch neuerdings haben wir in Europa Kunstgruppen, die mit so unpopulären, esoterischen Kunstmitteln arbeiten, dass das Laienpublikum vielfach völlig ratlos ihnen gegenübersteht.

Indessen so sehr die Kunst sich absondern mag aus der Gesamtheit des Kulturlebens, völlig lässt sich solche Esoterik der Kunst nie durchführen. Denn einerseits wurzelt die Kunst, auch wo sie dagegen rebelliert, dennoch irgendwie im überästhetischen Gesamtleben, auf das sie zumeist auch aus ihrer Esoterik heraus zu wirken strebt; andererseits unterliegt die Kunst stets auch Einflüssen von Seiten anderer Sondergruppen (religiösen, wissenschaftlichen, wirtschaftlichen) und auch von Seiten eines allgemeinen Publikums, das nicht bloss ästhetisch empfindet, sondern auch am religiösen, wissenschaftlichen, wirtschaftlichen Leben teil hat. In der Tat zeigt die Kunstpraxis überall, auch dort, wo sie theoretisch zur Autonomie hinstrebt, eine Wechselwirkung zwischen der Kunst einerseits und Religion, Wissenschaft, Moral andererseits, was sich soziologisch betrachtet als Wechselwirkung zwischen den verschiedenen Sondergruppen darstellt. Bald nähern sich Kunst und Religion einander an (wie in der Romantik), bald verhält sich die Kunst, (wie zumeist im Naturalismus) ablehnend gegen alle Religion aber sie paktiert dafür gern mit der Wissenschaft (Zola). Interessant ist in der Gegenwart die starke Beziehung der Dichtung mit der Psychoanalyse. Oder die Kunst unterliegt Einflüssen von Seiten der Photographie, des Films, des Radios usw. auch dort, wo die Künstler selbst diese Einflüsse ablehnen. Immerhin ist z.B. das moderne deutsche Drama in seinem gehetzten Tempo zweifellos von der Filmtechnik beeinflusst. Andererseits hat ein gewisser Gegensatz der Künstler gegen die Photographie in der expressionistischen Malerei zu einer Ablehnung alles Photographiemässigen geführt. Natürlich wirken in allen solchen Fällen nicht Kunst, Wissenschaft, Religion in abstrakto aufeinander, sondern die Einflüsse spielen stets zwischen den konkreten Vertretern der einzelnen Kulturrichtungen hin und her die sich zu Gruppen zusammenschliessen und oft in dogmatischer Form ihre praktische Haltung verfechten. Was man als 'Heteronomie der Werte' zu beschreiben pflegt, spielt sich in Wahrheit stets in Form von Machtkämpfen heterogener Gruppen ab und ist durch deren

Struktur aufs starkste mitbedingt. Oder aber es erzwingen solche Gesellschaftskreise, deren Interessen mehrere Kulturgebiete zugleich übergreifen, die Verquickung heterogener Wertungen.

IV

Wir behaupten also nach allem nicht, dass die Soziologie das Aesthetische restlos erklären könnte, aber wir betonen, dass die Probleme der Kunstentwicklung und der Ausprägung ästhetischer Stilformen ohne Berücksichtigung des soziologischen Untergrundes überhaupt nicht zu verstehen ist. Übersoziologisch ist die Tatsache des Aesthetischen überhaupt, dass es Natur und Kunstformen gibt, die als 'schön', 'erhaben', 'komisch', usw. erlebt werden. Wohl kann man soziologisch, ebenso wie biologisch und psychologisch manches dazu sagen; die Tatsache des Aesthetischen selbt ist übersoziologisch, ist metaphysisch, wie das Leben selbst, und höchstens aus der apriorischen Struktur des Geistes oder letztlich der Welt abzuleiten. Indessen kommt man mit solchen Untersuchungen nicht über ganz Allgemeines hinaus. Für die Erforschung des konkreten ästhetischen Lebens ist die apriorische Forschung wenig fruchtbar. Der Mangel der Philosophischen Aesthetik ist es, dass sie die Probleme allzu abstrakt sieht und zum Beispiel bei dem Begriffe 'Kunst' nur an die Summe der objektiven Kunstwerke denkt. Aber es gibt keine 'Kunst an sich', sondern nur 'Kunst für ästhetisch erlebende Subjekte', die ihrerseits wieder nicht isoliert gesehen werden dürfen, sondern in ihrer Eingliederung in soziale Gruppen, wodurch ihr ästhetisches Erleben stets stark modifiziert wird. Für Barbaren, aber auch für hochkultivierte Chinesen ist eine für europäische Ohren wunderschöne Musik leerer Lärm. Subjekt des Aesthetischen ist nie ein hypothetischer 'allgemeiner Mensch', auch nicht eine Summe von isolierten Individuen, sondern stets eine soziale Gruppe von bestimmter Struktur. Der Wettstreit der einzelnen Kunststile spielt sich nicht in einer Sphäre reiner Geistigkeit ab, sondern ist stets zugleich auch Machtkampf realer Gruppen untereinander. Nicht als Abstrakta haben sich Klassizismus, Romantik, Realismus usw. befehdet, sondern die konkreten Gruppen der Klassizisten, Romantiker, Realisten haben miteinander gekämpft und die Gunst des neutralen Publikums gerungen. Sieg oder Niederlage waren nicht bedingt durch eine absolute Gesetzlichkeit, sondern wurden entschieden nach der soziologischen Machtkonstellation. Wenn es eine apriorische Aesthetik gibt (was ich für gewisse allgemeinste Tatsachen nicht abstreite), so ist die von ihr aufgezeigte Gesetzlichkeit in der Wirklichkeit doch stets relativiert und zwar, wie ich zeigte, nicht so sehr durch die psychologische Struktur der Individuen, sondern in viel deutlicherer Weise durch die sozialen Gruppen, deren Einfluss auf das ästhetische Leben darum mindestens *auch* eine wichtige Aufgabe der Aesthetik sein muss.

LOCKE AND THE POLEMIC AGAINST CARTESIAN PHILOSOPHY: CAUSALITY AND COGNITION

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PHILOSOPHY, having escaped from the clutches of panpsychism, materialism, and blind voluntarism respectively, has recently turned to subdue Cartesianism 'with its bifurcations'. And curiously enough, following upon strong declarations against the absurdities of Cartesian ontology, this warfare has been conducted by way of a Platonic epistemology; and the fact thereby has seemingly been neglected that since the object of attack is itself historically grounded in Platonic principles, the advancing hosts have suffered the liability either of being enticed into the opponents' stronghold or of being led far from the strategic issues.

Polemics against Cartesian Platonism have not always been waged after this fashion, however; literature contains a classic criticism, that of John Locke, which was urged unequivocally on epistemological grounds. And it may not be inappropriate to indicate, if for no other purpose than that of comparison, in the few minutes at our disposal, what these grounds in the main are.

The tenets of Platonism which have determined the history of philosophical thought are mainly three: first, desire is logical affirmation and volition, cognitive intention. Secondly, motion or change is 'otherness' of predication. Thirdly, causality is to be interpreted from within the cognitive act. And of these three, the first and second are dependent upon the third.

Knowledge—and desire as well—Plato urged, is not the production of anything within the soul, but the recognition of Forms already there, rationally possessed. Sense, with its particulars, is not a productive cause of knowledge, only its occasion. And as light might be regarded as the 'cause' of 'sight' in an Empedoclean theory of knowledge, in some such manner is the Idea of the Good analogically the 'cause' of the intellectual cognition of Forms.

This interpretation of experience was the subject of questioning by its author; it failed to reveal how a predicative type or Form, which is recognized on one specific sensory occasion, might validly be applied to others; it placed knowledge in the realm of universals and gave it no effective relation to particulars; and it left the soul, to which inherent motion had been assigned as an essential, without the exercise of power. These difficulties were rendered negligible, however, in a later interpretation of the life of the soul as the cognitive affirmation of a logically discursive manifold world of predicative relevances, in which, incidentally, the sensory element became an 'aspect' rather than an 'occasion'.

Saint Augustine who supplanted the 'sun' and the Good of Plato with God, gave sensation the status of a 'reporter', and interpreted different attainments in knowledge as different degrees of illumination, by which men, through the gift of cognitive desire, perceive and possess that truth which is the Divine Mind.

Descartes, having early doubted the conclusions of Saint Augustine, and then having divided the content of cognition into matter and mind, to both of which he gave the status of being, was forced to invoke once again the Augustinian God, not only in order to account for the validity of knowledge, but to preserve the two ontological realities through successive moments of existence. And he bequeathed to subsequent philosophy, instead of the sensory occasionalism of early Platonism, a triple occasionalism involving (*a*) successive moments of existence, (*b*) the relation between subject and object, in part physical—thinkers of the seventeenth century still interpreted knowing as a mental function—and (*c*) the relation between body and mind.

Both the continental and the English Platonists were, however, equal to the difficulty of this situation. They simply proclaimed, with considerable verbal subtlety in many instances, the 'Omniform Presence of God', both as the means of ordering experience and the world, which were described in rationally 'ideal' terms, and as the cause of knowledge; while to such unessentials as sense, matter, and particulars they gave the otiose function of 'occasion', thereby, in the words of Locke, indulging in 'metaphorical expression to cover our ignorance in a way that pretends to explain our knowledge'.

This philosophical solution was, strangely enough, accepted by most persons, no doubt because of its apparent piety, and probably because it implied that the beliefs of a certain group of Western Europeans comprised the normal content of human experience. Hume, however, saw through its verbiage, and after recognizing in 'sensation' something more, and not something less, than a subsequent mental state, he omitted the concept God, with the result that the structure went to pieces. Kant was awakened from his Platonic slumbers, and attempted to stop certain of the breaches with his 'regulative' principles.

Locke's condemnation of the whole situation is in the best Aristotelian tradition; it begins with the claim for the jurisdiction of causality over the act of cognition as well as its content, and ends with the combining of motion and representation. His primary objection, among many others, is that Platonism makes no real attempt to explain the act of representation in knowledge—how a Platonic essence could be verified with reference to an 'occasion' without some effective relation, Locke could not see—not even what 'the alteration in the mind is', when it 'sees what it did not see before, either the "divine idea" in the understanding of God, or, as the ignorant think, the marigold in the garden'. Incidentally, in this respect, that is, in virtually denying cognitive effectualness, Hobbes and Spinoza, Locke observed, are on exactly the same footing.

For Locke the most elementary act of sensory experience involves several productively causal factors: a physical object, which is 'represented'—not mirrored—through the efficacy of a complex causal process in the resultant 'idea'; a sensory organ (a blind man cannot see an object whose presence, attested by other sensory experiences, is in the field of vision); physical conditions such as optic glasses and distance (an object is not seen 'the very instant it is uncovered', for example, light takes time to come from the sun); and a perceptually active mind.

The 'idea of sensation', when produced, displays certain characteristics of its own; as an experience immediately perceived it has a characteristic vividness, which is not present in the mental datum which persists in memory. Again, in the production of an 'idea' the continuity of motion, sustained by interacting causal agents and patients, is broken through the production of a 'fixed', 'determined' factor, which does not itself act but 'represents' action.

'Ideas', when considered each as one mental event among others, may be regarded as particulars; but once they have assumed a representative role, already they have acquired universality through an act of the mind called abstraction. 'Ideas become general by separating from them the circumstances of time and place and any other ideas that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one.' Knowledge, as the Platonists rightly contend, is composed of essences, of ideas 'without variation determined . . . objectively in the mind'; 'to talk of specific differences in nature without reference to general ideas in names is to talk unintelligibly'.

There is one experimental factor with which all things are concerned, namely, causality. Knowledge involves at least two sorts of cause—mental and physical—because, among other reasons, the mind which perceives the 'idea of sensation' cannot be the sole cause of this mental datum, since without an appropriate stimulus no such 'idea' occurs, while the mind has the power to revive such an 'idea' after the physical stimulus has disappeared. And there are data, related through the exercise of the mind's causal power in 'compounding' and 'comparing' ideas in hypotheses concerning substances and modes, which cannot be fitted into the order of 'nature'.

Truth, which is consequent upon the mind's discovering the 'agreement' or 'disagreement' among ideas, is representative of an independent reality; it comprises an interrelated structure of 'nominal essences', a propositional realm every step of which is traced with intuitive certainty and verified not only by such intuitive relevance, but by the causal relevance of sensory experience as well. And while causality provides a continuity in both physical and representative relevances, and a means of verification in sensory reference, it is not possible to discover the nature of causes themselves, those 'real essences' which are 'the source' of 'motions'; these are hidden behind their 'powers'. Human knowledge, which is 'mediocre' and not absolute, consists of nominal essences, combinations of predicates both general through abstraction and contextually interdependent. Nominal essences include two types of qualities, primary and secondary; the former determines the object's position in an extra-mental world of interconnected physical things, the second gives it status in reference to the reactions of a perceiving mind. Both of these 'qualities' having been abstracted from the particularisms of time, place, and process, are capable of limitless representative localization in specific occurrences, and thus make possible scientific knowledge. Both are objective through their dependence upon a regularly ordered causality; one involves a relationship which is interphysical, the other a psychophysical one—productivity in either case is no more miraculous than in the other.

KATEGORIEN DER GESCHICHTE

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I

Unter Kategorien der Geschichte sollen hier nicht solche des geschichtlichen Denkens oder Forschens verstanden werden, sondern Kategorien des geschichtlichen Seins. Zum geschichtlichen Sein aber soll das gerechnet werden, was im Geschichtsprozess steht; und das ist alles geistige Sein, soweit es nicht im einzelnen Vertreter aufgeht, sondern ihn umfangend und überlebend die Generationen der Menschen entlangwandert, indem es sich selbst manigfaltig um- und ausgestaltet.

Ein solches geistiges Sein ist den Zeitgenossen allemal gemeinsam, es ist Gemeingeist, oder nach dem Worte Hegels 'objektiver Geist'. Vom objektiven Geist als einer Grundkategorie des geschichtlichen Seins soll hier gehandelt werden, sofern er stets im Geschichtsprozess steht, mit ihm aber nicht zusammenfällt, sondern in ihm entsteht, sich entfaltet und vergeht. Zwischen ihm und der Prozesskategorie ist von vornherein dieses Verhältnis: er teilt sie mit allem Realen, auch dem Ungeistigen, durch ihn aber — resp. durch seine Trägerschaft — wird der Prozess zum geschichtlichen Prozess erhoben. Dabei ist als Grundbestimmung vorausgesetzt, dass im strengen Sinne überhaupt nur das geistige Sein Geschichte hat, nicht aber das geistlose Sein für sich. Naturabläufe sind auch Prozesse und verlaufen in der gleichen Zeit. Aber sie sind nicht Geschichtsprozesse. Die Prozesskategorie der Geschichte ist bereits bedingt durch die Kategorie des objektiven Geistes. Und ebenso ist die kategoriale Grundform der Zeitlichkeit in der Geschichte durch sie wesenhaft modifiziert und bedingt.

Der Entdecker des objektiven Geistes, Hegel, hat mit diesem Begriff eine Geistesmetaphysik verbunden, von der hier grundsätzlich abgesehen werden muss. Hegel ging von der Position einer 'allgemeinen Geist-Substanz' aus, zu der sich die Individuen wie Accidentien verhalten; diese Substanz durchläuft geschichtliche Gestalten, in denen sie sich einseitig verwirklicht. Im Geschichtsprozess wirkt sie sich wie eine Vorsehung aus, die über alle menschlichen Zwecke und Leidenschaften hinweg dafür sorgt, dass ihr Wesen sich realisiere.

Diese Hegelsche Geschichtsteleologie ist in jeder Hinsicht unhaltbar. Und wenn der Begriff des objektiven Geistes mit ihr stünde und fiele, so müsste man ihn schlechterdings mit preisgeben. Es lässt sich aber zeigen, dass er nicht mit ihr steht und fällt, dass vielmehr in Hegels Gedanken selbst ein unbestreitbar geschauter und unverlierbarer Kern steckt, der sich von allem Konstruierten leicht ablösen lässt, wenn man das Phänomen als solches unvoreingenommen ins Auge fasst und schlicht zu beschreiben sucht.

Auch unsere Zeit ist reich an Geschichtstheorien. Aber es fehlt diesen Theorien ein kategoriales Fundament. Es fehlt an einem Geistesbegriff, der sich als tragfähig für die Grundphänomene der Geschichtlichkeit erwiese. Ein solches Fundament kann nur beim Begriff des geistigen Seins selbst gesucht werden. Darum handelt es sich um ihn als Grundkategorie.

II

Man begegnet für gewöhnlich der Auffassung, der persönliche Geist sei wohlbekannt, der objektive Geist aber eine fragwürdige Sache. Hält man sich streng an das Gegebene, so ist das Umgekehrte der Fall. Wir wissen wenig vom Wesen der Person, des Subjekts, des Ich, relativ viel aber vom geschichtlichen Gemeingeist. Während die Psychologie an jene kaum heranreicht, gibt uns die Geistesgeschichte sehr bestimmte Aufschlüsse über geistige Strömungen, Tendenzen, Wandlungen; die Geschichte des Rechts, des Ethos, der Künste, Sprachen, Literaturen, desgleichen der Staaten und Verfassungen kann überall direkt am objektiven Zeugnis des Geistes von sich selber ansetzen. Alle Geisteswissenschaft, soweit wir sie haben, ist Wissenschaft vom objektiven Geist.

In der Tat macht die rein beschreibende Fassung des objektiven Geistes durchaus keine Schwierigkeiten. Wir sprechen ohne Zweideutigkeit vom Geist der Griechen, der Römer, der Franken und Angelsachsen; wir sprechen auch speziell vom Geiste des Periklëischen Athen, des Ciceronischen oder Augustëischen Römertums. Und wir können in jedem Falle diesen Geist näher bezeichnen, unterscheiden, in charakteristischen Merkmalen angeben. Ob man dabei an Repräsentanten denkt oder direkt an das Gemeinsame, macht keinen Unterschied, denn auch die Repräsentanten sind lediglich als Beispiele gewählt, und nicht als Individuen um ihrer selbst willen. Immer ist die gemeinsame, einheitlich geprägte Geistessphäre das, wovon man spricht, und wird ohne Schwierigkeit als solche verstanden. Die einzelnen Vertreter aber sind es, die diese Einheitsprägung als eine Fülle aufweisbarer Merkmale an sich tragen.

In diesem Sinne nun gibt es den objektiven Geist auf allen Gebieten: in der Sprache, in den Sitten (in dem, was für schicklich und unschicklich gilt), im Lebensstil (in dem, was zur Zeit 'guter Geschmack' ist), in der Moral, in Kunst, Wissen und Technik, in Religion, Weltanschauung und Erziehung; nicht weniger aber auch in den Formen der Gemeinschaft, des sozialen und politischen Lebens, in Recht und Staat. Auf all diesen Gebieten hat jedes Volk zu jeder Zeit seine besonderen Formen und Prägungen. 'In' ihnen leben die Individuen, und ein Leben ausserhalb ihrer kennen sie gar nicht. Ein isoliertes geistiges Individuum ohne objektiven Geist, in dem es steht und in dessen Formen es sich bewegt, ist eine Abstraktion. Für das Verhältnis von Individuum und objektivem Geist lassen sich die folgenden Bestimmungen geben.

1. Der objektive Geist ist wohl getragen vom Collectivum der Individuen, aber er besteht nicht aus ihnen, ist selbst kein Collectivum. Die Sprache z. B. besteht nicht 'aus' Individuen, sondern aus geformten Ausdrucksmöglichkeiten, deren jede den Individuen allen gemeinsam ist. An ihr bedeutet gerade die Zahl der Individuen etwas sekundäres. Dasselbe gilt vom Recht, von der Moral, von der Kunst, vom Lebensstil u.s.f. Umgekehrt aber ist die besondere Form des Geistes auf diesen Gebieten sehr wohl bestimmend für die Form des Collectivums.

2. Der jeweilige objektive Geist ist wohl den Individuen gemeinsam, er geht aber niemals in einem einzelnen Menschengeist auf. Am bekanntesten ist dieses an der Wissenschaft: das Wissen einer Zeit wird nie von einem einzelnen Kopfe umspannt, es müssen stets ihrer viele in Arbeitsteilung zusammenstehen, wo es als Ganzes sich aktualisiert. Dennoch bildet die Wissenschaft einer Zeit eine Einheit und Ganzheit und wird als solche empfunden, von den Zeitgenossen wie von den Nachfahren. Diese Ganzheit aber ist von anderer Art, eine inhaltliche, objektive Ganzheit.

3. Der objektive Geist bildet eine gemeinsame Sphäre, die immer schon da ist, wenn der Einzelne in sie eintritt. Der Einzelne wird in sie hineingeboren, um dann auch geistig in sie hineinzuwachsen. Er muss sie lernend sich zueigen machen. Denn der Geist kann nicht vererbt, sondern nur tradiert werden. Das Hineinwachsen ist ein langer Prozess in jedem Menschenleben; zum Teil muss er bewusst betrieben und betreut werden (Erziehung, Bildung, Lehre), zum Teil vollzieht er sich ungewollt im Zusammenleben. Niemand erfindet sich seine eigene Sprache, Moral, Wissenschaft, er übernimmt die bestehende, sein Denken

wird schon in der Entwicklung in deren Formen geprägt, lernt sie beherrschen, sich in ihnen bewegen. Alle Auffassung, Anschauung, Wertung, Stellungnahme ist von hause aus durch sie als die bestehenden und geltenden geformt. Er sieht die Welt, das Leben, die menschlichen Verhältnisse in diesen Geformtheiten, er kennt sie anders gar nicht. Und erst wenn er an das gemeinsame Niveau herangewachsen ist, kann er darüber hinauswachsen und führend werden.

4. So bildet der objektive Geist eine ungeheure Macht im Leben des Individuums — eine tragende, denn der Einzelne fusst auf ihm, — aber auch eine begrenzende, denn er kann nicht beliebig dagegen angehen. Diese Macht erfährt er als eine ihm überlegene sehr drastisch an sich selber, wenn er sich auflehnt, mit Neuem hervortritt, Geltendes und Anerkanntes stürzen will. Der gemeinsame Geist, der die Zeitgenossen gefangen hält, wehrt sich dagegen; und wenn er nicht in seinen Trägern selbst in Bewegung kommt, so ist alles Angehen gegen ihn vergebens, der Neuerer wird durch das Gewicht des Bestehenden erdrückt. Auch im Kleinen ist dieses Phänomen wohlbekannt. Jeder Verstoss — auch gegen eine an sich gleichgültige Sitte, gegen Konventionen, oder Umgangsformen — rächt sich am Täter; nicht weil die Sitte das absolut Wahre oder Wertvolle wäre, sondern weil sie die bestehende ist. In dieser Macht, die der objektive Geist ausübt, liegt der sichtbarste Beweis dafür, dass er etwas Wirkliches und geschichtlich Reales ist.

5. Trotzdem ist das Individuum seinerseits auch jederzeit eine bewegende Macht im objektiven Geiste. Dieser selbst steht nie still, ist im steten Wandel begriffen, wennschon nicht so, dass der Einzelne den Wandel auch stets als solchen erlebte. Sein Fortschreiten läuft in anderen Zeitmassen als das des Individuums. Nichtsdestoweniger aber sind es die Individuen selbst, die darin schöpferisch bewegend sind, auch wenn sie darum nicht wissen.

6. Der objektive Geist ist nicht ein bloss Allgemeines, seine Seinsweise ist nicht die der Wesenheiten (*essentiae*). Er ist ein zeitgebundenes und selbst zeitliches Etwas, das sein Entstehen und Vergehen, seine Entwicklung, Reife und seinen Niedergang hat. Das bedeutet: er ist etwas geschichtlich Reales, dem seine Lebensdauer zugemessen ist, nicht anders als den Individuen die ihre. Wir unterscheiden daher im geschichtlichen Denken zwischen lebender und toter Sprache, geltender und nicht mehr geltender Moral, jeweilig positivem Recht und solchem, das nicht mehr positiv ist. Eine Macht in gegebener Zeit ist nur das in ihr positiv

Geltende. Nur ihm gilt das wirkliche Rechtsgefühl, das empfundene Ethos der Lebenden. Ein ideales Recht wäre blosse Wesenheit, Idee, ein geschichtlich Irreales und Lebloses. Der lebende Geist hat allemal sein bestimmtes zeitgemässes, im Rechtsbewusstsein der Lebenden selbst mächtiges Recht.

7. Und dieses Eigenleben des objektiven Geistes ist, wie alles Reale, allemal ein individuelles. Die Individualität hebt seine Allgemeinheit für die Individuen der Zeitgenossenschaft nicht auf. Sie bedeutet einfach seine geschichtliche Einmaligkeit, Einzigkeit und Unwiederbringlichkeit; er teilt sie mit allem geschichtlich Realem, mit den Ereignissen, Entwickelungen und Schicksalen der Völker. Auch der bestimmte Zeitgeist wiederholt sich nicht, so wenig wie irgend etwas in der Geschichte sich wiederholt.

8. Die Gesetzlichkeit, nach der sich der objektive Geist geschichtlich bewegt, ist weder eine physische noch eine psychische, sondern eine eigentümlich geistig-geschichtliche Eigengesetzlichkeit. Das folgt aus der geschilderten Eigenart seiner Seinsweise. Der geschichtliche Geist ist durchaus abhängig vom Sein niederer Ordnung, vom physischen, organischen, seelischen und individuell-geistigen Sein; er ist 'getragen' von all diesen Schichten des Realen; den freischwebenden Geist — ohne leiblich-organischen Träger (die Individuen, das Volk) — gibt es im Bereich menschlicher Erfahrung durchaus nicht. Der objektive wie der individuelle Geist kommt nur als 'aufruhender Geist' vor. Aber dieses Aufruhen, Getragensein und Abhängigsein hindert seine Autonomie nicht. Denn weder seine Seinsweise noch seine besonderen geschichtlichen Gestalten lassen sich aus dem Gefüge niederer Bedingungen verstehen. Der objektive Geist 'überbaut' sich dem seelischen Sein, wie dieses sich dem organischen überbaut. Er ist sowenig ein Gefüge von Rasse und physischen Lebensbedingungen als ein Collectivum von Personen. Er als Ganzheit ist überhaupt nicht in Elemente zerlegbar. Er ist originäre Einheit höherer Ordnung.

III

Soweit ist der Begriff des objektiven Geistes in sich eindeutig. Das Merkwürdige aber an ihm ist, dass er von sich aus kein adäquates Bewusstsein seiner selbst hat. Wäre er eine geistige Substanz über oder hinter der Vielheit der Personen, so liesse sich wohl auch an ihm Personcharakter und Bewusstsein finden. Der Gedanke eines allgemeinen oder transcendentalen Bewusstseins läge dann nahe genug. So aber ist der objektive Geist nicht. Es gibt wohl ein Bewusstsein von ihm, aber es ist nicht das seine, sondern das der Individuen. Und dieses eben ist seinem objektiven Gehalt nicht adäquat. Wir kennen kein Bewusstsein über dem menschlichen Bewusstsein, haben auch keine Anzeichen eines solchen; und wir müssen uns an das halten, was wir kennen; mit Konstruktionen kommt man den Phänomenen nicht näher. So kann man denn freilich sagen: der objektive Geist hat sein Bewusstsein nicht in sich, sondern in uns. Da aber unser Bewusstsein ihn inhaltlich nicht erschöpft, so muss man hinzufügen: er hat es ebensosehr auch nicht in uns. Und wiederum, soweit er es nicht in uns hat, hat er es überhaupt nicht.

Es ist eine an sich paradoxe Sachlage, dass es Geist geben soll, der nicht Bewusstsein ist. Am subjektiven Geist — und an ihm orientiert man sich unwillkürlich — kennen wir es nicht anders, als dass das geistige Wesen zum mindesten Bewusstsein ist; es geht dann freilich darin nicht auf, Bewusstsein zu sein (wie es denn auch ein ungeistiges Bewusstsein gibt), aber es besteht auch nie ohne Bewusstsein. Darin aber ist der objektive Geist anders gestellt. Er eben ist nicht subjektiver Geist, es fehlt ihm das Subjekt, und ohne Subjekt kein Bewusstsein. Die Sitten einer Zeit, der Lebensstil, das in einem Volk geltende Recht, u.s.w., sie alle sind als solche weder Subjekt noch Bewusstsein, sowenig als sie Personen sind. Und das Bewusstsein, das die lebenden Individuen von ihnen haben, ist ein sehr lückenhaftes. Wer kennt denn das ganze geltende Recht, in dem er lebt? Wer weiss adäquat um den Lebensstil, der ihm und anderen eigen ist? Der Landesfremde sieht ihn oft viel schärfer, aber der Stil ist nicht der seine. Vollends die bestehende Moral eröffnet sich dem Einzelnen doch überhaupt nur im Masse der Situationen und Konflikte, die an ihn herantreten; hier gerade lernt niemand jemals aus, — von Wissenschaft, Kunst, weltanschaulichem oder selbst politischem Verstehen gar nicht zu reden.

Hegel hat, ungeachtet seiner Substanztheorie, dieses merkwürdige Phänomen sehr deutlich gesehen. In seiner Sprache besagt es, dass der objektive Geist kein 'Fürsichsein' hat: er ist das, was er ist, nur 'an sich' nicht auch für sich. Hegel also nahm kein Bewusstsein höherer Ordnung zu Hülfe, keinen *intellectus divinus* oder *archetypus*. Auch er fand ein Bewusstsein des objektiven Geistes nur beim Individuum. Aber ein solches ist weder das seine, noch ein zureichendes.

Das ist nicht nur eine Sonderbarkeit, sondern auch eine wahrhaft schicksalhafte Grenze seiner geschichtlichen Selbständigkeit. Denn es gibt ein Gebiet des geistigen Lebens, auf dem sich das Fehlen des adäquaten Bewusstseins aufs empfindlichste fühlbar macht. Das ist das politische Leben der Völker in ihren staatlichen Einheiten. Der Staat nämlich muss handeln, er bedarf der Leitung, der Voraussicht, der Zielsetzung und des verantwortlichen Willens. Er als solcher hat nichts von alledem, nur die Individuen sind dessen fähig. Was ist die Folge? Das individuelle Bewusstsein tritt an Stelle des fehlenden Gemeinbewusstseins; Macht, Initiative, Verantwortung des Ganzen erscheinen 'repräsentiert' in einer Einzelperson, oder auch in einer engen Gruppe von Einzelpersonen. Jeder lebende Staat erhebt notwendig Einzelpersonen an die leitende Stelle; ob in patriarchalischer, monarchischer oder republikanischer Ordnung der Dinge, das macht hierbei nur einen untergeordneten Unterschied aus. Er kann ohnedem nicht existieren. Aber es ist und bleibt 'nur Ersatz', und kein vollwertiger. Denn der Mensch bleibt Mensch, und seine Erhebung zur höchsten Verantwortung vermag ihn nicht über sich selbst zu erheben, weder dem Ethos noch der Einsicht nach. Die Repräsentation bleibt auch hier notwendig inadäquat.

Die Folge ist: das politische Geschick der Völker bleibt im grossen Ganzen dem Zufall — und d.h. unbekannten Mächten — preisgegeben. Der Mensch vermag es nur in sehr beschränktem Masse zu lenken. Ausser ihm aber und 'über ihm' ist niemand da, es zu lenken.

THE FACTORS OF KNOWLEDGE

ROY WOOD SELLARS

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I TAKE it that the basic contrast for theory of knowledge is that between the knower and the known. Knowing is not an impersonal affair of a generic sort but a particular act, or event, located in organic beings. It is always some concrete individual that makes a knowledge-claim, which may, or may not, be justified. Knowing may be carried on co-operatively but it exists distributively. Any act, or event, of knowing is a particular occurring in some spatio-temporal locus, no matter how it may be conditioned by communication and past cultural streams. I stress this point against logical impersonalism and against those social perspectives which ignore personal centres.

Suppose I take an instance of knowing at the level of perception. It seems to me obvious that it is dominated by the contrast between my organic self, which is the agent and locus of knowing, and the thing known. And it is equally my belief that this organic self, which does the knowing, is a continuant which is susceptible of being known either by itself or by another knower.

The *known*, again, at this level is something which endures and which has characteristics and properties of a determinate sort. I perceive a book or a chair. Here is a peculiar act of mine referent to a thing equally real with myself. What is the nature of this act? It is in all likelihood *sui generis*. We must analyse it in an empirical and open-minded way. There has, I believe, been too much of a tendency to assume that it is something called consciousness that knows. It would be more correct to say that it is consciousness that makes knowing a conscious affair. I doubt that there could be knowing without consciousness, and yet I hold that it is not consciousness that knows. Always it is an organic agent that knows.

The task of theory of knowledge, as I see it, is to analyse and make explicit what is as yet vague and implicit, *and yet not to violate basic meanings*. The history of thought has shown that this is a very difficult job, for ontological theories have come in to confuse analysis—Cartesian dualism, for instance.

What, then, is basic? There cannot, I think, be a mere appeal to common sense for that might include theories and beliefs of a non-basic sort. To me, what seems basic is the claim to know as an act of a knower directed towards an object which the act declares it reveals. It is the assertion by individuals that they know objects which is basic and which must yet be analysed. The problem is: What is the nature and mechanism of such knowing?

I reject idealism in that I regard it as relinquishing what is actually basic to knowing as a claim characteristic of knowers. On the other hand, I reject naïve, or presentational, realism because I regard it as not covering the facts which analysis discovers. It is in the direction of a thoroughly revised representationalism that my form of critical realism has always moved. I wish now to indicate the factors which seem to me discoverable in the act of knowing and by their means to show how the act can accomplish its task of revealing an object.

The first factor is what I would call intent or reference. It seems to me that we can note, as a feature of either perceptual or definitely judgemental knowing, a sense of intent, direction, reference, or denotation. At the level of perceiving, this intent is experienced as an attitude towards a selected thing which is made thereby the object of the perceiving. This factor of reference expresses the behaviour of the organism, a looking at, a handling, a reaching towards. If I am asked what object I mean, that is, what object I am referring to, I can describe it unambiguously or I can point to it. It should be noted that the demonstratives, this and that, are used in this connexion. In perception, intent is completed by what seems to us the givenness, or appearance, of the object.

In the percipient's field of consciousness, the activity of perceiving is reflected as a directed awareness of a thing. It is out of this that naïve realism arises. It is easily supposed that at least a part of an external thing is apprehended. The consequence is, that awareness is readily supposed by thinkers who make naïve realism their assumption to be an essentially contentless act capable of reaching out to external things and illuminating them in a cognitive way. And so, I frankly confess, it seems to be.

If, at this stage, we leave the term, awareness, unanalysed and take it as at least connoting some kind of knowing of objects, we can note in what respect modern realism differs from traditional representationalism. The object of awareness is the external, physical thing, as real as the knower. Right from the beginning, perceiving is behaviouristically and experimentally concerned with the basic object of knowledge. This teaching is aimed against the older doctrine that ideas are the primary objects of awareness and perceiving. That doctrine was the fruit of Cartesian dualism and of a particular view of mind. We, on the contrary, do not confuse our epistemology with ontological assumptions and, if we have a view of the mind, it is apt to be operational.

But the critical realist holds that 'awareness of' demands analysis and that, as we dwell upon it reflectively in the light of relevant facts, it turns out to be complex and essentially judgemental. I have become accustomed to put the changed view of what cognizing is, as we pass from naïve realism to critical realism, in this way: To the naïve realist, knowing is an apprehending; to the critical realist, it is an interpreting.

I believe, in short, that every act of cognition is internally complex and that, besides the factor of reference, there is the utilization of factors such as sense-data, images and concepts, in a categorial setting of thinghood to forge predicates in terms of which to *think* the object. Any expression in language of the results of perceiving seems to me to corroborate this theory. I look at this book cognizingly and say 'This book is red'. Clearly, I do not suppose myself to be perceiving sense-data. It is only in a more sophisticated attitude when I have broken away from perceptual denotation and its categories that I concentrate on a red sense-datum. In short, I hold that there are factors which arise in the mind-brain in perception and which are utilized at the level of perceptual judgement in the forming of the concepts of properties to be regarded as possessed by external things. Knowing external things is always a thinking of them mediated by reference and concepts.

The upshot of my argument is, that we must try to regain the ability to describe our actual perceptual experience and then to lift it bit by bit to a reflective level and make it disclose its factors and its mechanism. The divergence between naïve realism and critical realism may be said to appear at two correlated points: (1) the content of the given, and (2) the view of knowing. What is *existentially given* for the critical realist is the whole directed complex of thought with its reference, its categories, and its specific predicates. I think this external thing to which I point as a determinate specimen of a physical thing, species, chair, and as being shaped and coloured. Sense-data are swept up into this thought and are used in it. Knowing is an interpretation of the object of knowledge in terms of predicates which reveal it. It is, I take it, evident that naïve realism regards a part of the given as actual features of the external thing and knowing as a kind of apprehension.

Let me turn now to the status of sense-data and predicates. On this point, there has been a difference in the teaching of the critical realists. I wish to give my own position as unambiguously as possible and contrast it with the 'essence-doctrine', which I have always rejected.

I hold sense-data to be particulars. In fact, I regard them as qualitied events in the brain-mind. And, more than this, I am entirely a nominalist and do not believe in universals in any Platonic sense. I work with the category of similarity as ultimate. Two exactly similar sense-data do not exhibit the same universal. 'The same universal' is merely our operational and conceptual way of treating similarity. But into this I cannot go at present. I take numerical difference of both sense-data and concepts very seriously, just as I take numerical difference among external things very seriously.

Next, in regard to predicates which, rather than sense-data, are the factors in our thought of things. I mean that sense-data are transformed into predicates in knowing external things. Predicates are quite clearly conceptual, and it seems to me that they are used in cognition as instruments for revealing the characteristics of the object known. Existentially, predicates are particular events with their particularity disregarded. One instance of a concept is operationally and cognitively as good as another. Here, again, I would work from the point of view of events and similarity.

As I understand the 'essence-doctrine', it is a denial of my whole idea of the field of consciousness. Only essences are given, and these are universals which have no existence. The content of consciousness is a sort of dream or hallucination. To me, on the contrary, the content of consciousness consists of a complex of events in the operative organism.

It follows that I regard an act of knowing as a directed claim in which ideas as particular predicates are used to reveal an object. When a predicate is *such that* it does reveal the object of the act to which it is intrinsic, then the claim is justified and the idea is true. Into the tests we use I cannot here go.

Such are the factors of knowledge as I find them. Critical realism is a thoroughly revised form of representational realism. The basic postulate of knowledge is the revelatory capacity of ideas.

IMPLICATIONS OF THE GENETIC METHOD

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THE genetic method is applied to processes which, whether they are planned or not, exhibit a plan which is progressively exposed as the processes continue. Its aim is to discover the factors which operate in this progressive exhibition. These factors are found within the context of the process selected for examination. This fact gives a certain priority to the plan of the process. In terms of the observed plan the processes to be examined are identified and distinguished. In terms of it continuities from origin to product are discriminated. In terms of it the contributions of the factors are analysed. In all these respects the plan can claim priority, for without it, to begin with, the relevancy of these identifications, distinctions, discriminations, and contributions could not be determined. Genetic inquiries are thus confronted at the outset with an observed teleology in the subject-matter with which they deal. The processes involved go on from origin to product as if they were arranged to produce the results which characterize them. From Aristotle's day to the present such processes have repeatedly suggested a comparison between nature and art, and raised the question whether factors recognized in art are to be recognized in nature also. The question has provoked much controversy.

The teleology in art seems to be a relatively simple matter, for the plan involved, both in its conception and execution, can be assigned to an artist. There may be difficulty in understanding how a plan conceived can be turned into a plan executed, but, miracle or not, the artist is there to work it. In construing natural processes as processes of art also, the finding of an artist presents a difficulty. It has, however, been greatly exaggerated. It seems as easy for the plan of a frog to be in a frog's egg as it is for the plan of a house to be in an architect's brain. The choice of artists, therefore, does not seem to be restricted. Vitalistic theories, consequently, ought not to be condemned out of hand on the ground that they make an absurd transfer from man to nature. Before that transfer can rightly be called absurd, either of two propositions must first be proved. One is that the plans of men are not controlling factors in what they do; the other is that only in men are plans controlling factors. Neither of these propositions has ever been proved or disproved. It is far from clear what would constitute a valid proof or disproof of them. They are matters of argument or controversy. Experimental evidence is not decisive because its probative force depends on some antecedent theory of the relation between the factors in dispute. If the term 'soul' is used as Aristotle used the term ψυχή, to distinguish *a* life from *any* life, the distinction between body and soul confronts the observer at every turn; and what he makes of the distinction will determine for him the value of experimental evidence.

Attempts to settle the controversy between mechanists and vitalists in favour of either seem, therefore, to be hopeless. It is to be noted, however, that the discoveries of the mechanists can not be set aside except by finding errors in their experimental procedure. Genetic experiments, however interpreted, are like other experiments in this respect. And the claim of mechanists that vital factors are irrelevant to their procedure seems sound and just. Their procedure aims at what can be experimentally identified and measured, and has been so successful that it is not fair to blame mechanists for not doing what they do not intend to do. The terms 'mechanism' and 'mechanical' may be offensive, but their meaning in experimental procedure is free from disrespect. It is not an insult to digestion to explore its chemistry, nor to vision to explore its physics. The mechanists rest on the solid fact that, no matter how processes are labelled, chemistry and physics are discoverable in them.

What, then, is it that either party to the controversy does, to which the other objects? The mechanists evidently claim that vital factors can not, and ought not to be, introduced into experimental procedure because their introduction robs the procedure of experimental control. This claim seems to be just, in spite of the experiments of vitalists in support of their own view. Such experiments seem to do no more than define a context within which experiments may be performed; and within this context experimentation seems to reveal precisely the kind of factors on which the mechanists insist. The claim of the mechanists seems, therefore, to be justified.

The vitalists evidently claim that the mechanists do not, and cannot, solve the teleological problem. This claim seems to be just also. I am not sure that mechanists generally think they are solving that problem, or are interested in trying to solve it. They may claim that a solution is irrelevant to what they are doing. My reading, however, convinces me that an appearance on their part of trying to solve it, or the belief or fear on the part of others that such an effort is made, is the primary source of the controversy. I cannot find that the facts brought to light by the mechanists are any more disputable than the facts brought to light by the experimental method generally. The dispute seems to bear wholly upon the use of these facts to explain that observed teleology without which the genetic method would have no subject-matter to explore.

If this is true the controversy is simplified and set in a more general context. If an explanation of teleology is sought, it is pertinent to ask what sort of an explanation would suffice. The answer seems to me to be the usual one. In all my reading and reflections I find no other. The only sort of explanation of teleology which would suffice is one that involves the imposition of a teleological principle upon factors which are not teleological in their own right. Again the appeal is to the artist, only now the artist is not a co-worker with the adaptable possibilities of his materials, but a separate agency, without which those materials would be quite devoid of import or possibility of adaptation. If teleology is not accepted as a metaphysical datum, but requires first an explanation, then it seems that the only sort of an explanation which would suffice is a theory which provides somehow for the imposition of teleology on an existence otherwise totally devoid of it.

I do not find that the genetic method implies any explanation of this sort. It takes the plans of processes as it finds them. Its analyses may lead to a better understanding of the operations involved, and to some control of them, but these consequences are the normally expected consequences of inquiry generally. 'Explanation' may be defined in terms of them without at all implying that teleology is thereby accounted for. Finding the co-operating factors in the production of a result which has a specific character is quite different from finding a principle which produces that character. Now, as I see it, failure to observe the distinction here involved, or the suspicion that it is overlooked, gives the impulse to vitalistic theories. It is so clear that mechanism does not account for teleology that any suggestion that it does leads repeatedly to a protest. The protest is valid enough, but it is not itself a counter-explanation. The failure of mechanism to explain teleology does not imply that vitalism or anything else will explain it, or even that it is in need of some explanation. Yet, judging from history, the denial of mechanism is readily turned into an affirmation of vitalism.

Something can be said in its favour, for vitalism involves an appeal to specific powers or energies. Such powers are hard to deny. What things do, they obviously can do. This, their ability, is their power. Nature is a domain of just such powers. But there is considerable difference between acknowledging powers and converting them into teleological agencies. The eye has the power of vision, but to convert that power into an agency which produces eyes in order that the power of vision may be exercised, is a procedure difficult to match in futility. Clearly such an agency would have to create an instrument with which to see, and act, thus, after the manner of a man who makes a microscope and observes how the instrument works. It leaps the bounds of credibility that an agency must first see in order to make an eye in order to see. Why make an eye at all, if vision operates without one? Into such strangeness of conception on a total scale vitalism seems to fall when offered as an explanation of teleology. Powers are unmistakably evinced in the operation of their instruments, but this is the fact of teleology, the fact observed, and not its explanation. Since the exhibition of powers is what is observed in the operation of instruments, the way the instruments work becomes a matter of the instruments solely.

The genetic method, then, leaves the fact of teleology precisely where it finds it, as an observed trait of the subject-matter with which it deals, without explaining teleology, or explaining it away. Perhaps it would be profitable to stop trying to explain it, and turn to an exploration of its consequences and implications. A universe—if I may speak after the manner of philosophers—a universe in which plans are actually worked out is probably more interested in working them out than in provoking the question why it is that kind of a universe. To seek the purpose of a purposeful world looks like seeking the good of what is good, the evil of what is evil, the beauty of what is beautiful, the meaning of what is meaningful, the truth of what is true, or the divinity of what is divine. A teleological universe merits these adjectives in its own right, without imposing the necessity of finding some principle or principles by virtue of which these adjectives are warranted. These adjectives express in our human speech what the universe discloses as of importance in its concerns; and man, who can only equivocally be called its chief concern, exhibits this importance convincingly.

A less massive statement of possibilities is desirable. Teleology may throw some light on the nature of inquiry itself. There has been controversy among philosophers over the relation of inquiry to subject-matter, of knowledge to objects. To settle the controversy it would seem necessary to exhibit knowledge and objects in a context in which they could be independently identified. Such a context is not accessible. We can deal only with the operation of inquiry as it formally proceeds. Then it is exhibited as itself a genetic process. It is an instance of teleology. A theory of knowledge, therefore, can hardly be expected to reveal a context which is antecedently irrelevant to the teleological character of inquiry itself. Knowledge is not the attempt to apply a logical framework to existence in order to see whether it fits. It is rather a genetic process, which, moving within what frameworks there are, discloses them with increasing clarity. A theory of knowledge would seem, therefore, to involve something else than an attempted explanation of the relation of subject to object, or an attempted justification of the validity of knowledge. It would do for inquiry generally something analogous to what the genetic method does for living creatures. It would be as much debarred from beginning with an original antithesis between subject and object, a world to be known and a mind to know it, as the theory of genetics is debarred from beginning with an original antithesis between inorganic matter and an organic principle to quicken it.

THE HISTORICAL BACKGROUND OF ARISTOTLE: *TOPICS* VIII

R. ROBINSON

THEODOR GOMPERZ remarked that the historians of philosophy usually pass over the *Topics* 'in what might almost be called an embarrassed silence'; and, though he blames them for this, they would certainly be right if the work were, as he represents it to be, a handbook to the art of winning arguments by contemptible means. There seems to be only one writer who has thought it worth while to give a long account of the eighth book, and that is Grote. But in reality this book well repays consideration. It is not the guide to cantankerousness that Gomperz's quotations suggest, and it is a very important document for the history of Greek philosophical method. It presents an organized system of dispute, and therefore raises the question whether such disputes actually occurred, and, if so, when and how. This question seems to have been somewhat neglected in modern research. We usually find that the prevalence of such disputes is taken for granted, while no evidence is offered therefor, and no effort is made to imagine their form. For instance, we read in Gomperz that 'Aristotle desired to equip his hearers and readers for the disputations which had acquired an astonishing importance and extent in the philosophical schools of that age', and that his logic sprang in part 'from the dialectical tourneys the sound of which filled the assembly of the people, the halls of justice, and the schools of the philosophers'. I do not find in Gomperz any evidence for these assertions, any attempt to visualize such tourneys, or any explanation of the strange suggestion that philosophical dialectic was to be heard not merely in the law courts but even in the assembly. Various authors speak of 'die eristische Disputierkunst' and the like, but they seem not to enable us to imagine what it was. Such, and so vague, is our idea of Greek philosophical dispute. When we reflect on this situation, it seems clear on the one hand that we ought not to be content with our present hazy and uncriticized notion, and on the other that the eighth book of the *Topics* is the primary document for a better.

This paper is not a thoroughgoing exploitation of the *Topics* from this point of view. It is simply an attempt to convince students that there is a neglected historical problem here, and to collect a few ideas towards its solution. The criticism and development of these ideas must be left to persons with a better knowledge of the field. I must assume that you recall the picture of disputation in *Topics* VIII, because the rules of this congress do not allow me time to describe it.

The *Topics* is obviously a manual for practice, and more directly and exclusively so than any other part of the *Organon* if we count the *Sophistical Refutations* as its ninth book. The existence of such a manual is adequate proof of the frequent occurrence of some form of deliberate disputation in Greek philosophical life. Gomperz's vague statements about 'dialectical tourneys', and their like in many other writers, are justified; but what justifies them is precisely the existence of this book. If it had been lost we should have no solid reason for believing in the occurrence of anything other than what is depicted in Plato's dialogues, and that is something different.

While the *Topics* proves the existence of some form of philosophical dispute, it does not establish the date and length of the period during which it was fashionable. We can only say the following. The appearance of a manual is sufficient proof that the art that it teaches has already been cultivated for some time, though perhaps without full consciousness of its virtue and possibilities. It is reasonable to assume that the kind of dispute that Aristotle envisages had already been going on for at least ten years, though probably in a less definite form, when the *Topics* was first drafted. The book itself implies that rules for competitive dialectic were already in existence, though rules for the other kinds were not. The time of writing was perhaps shortly prior to Aristotle's departure from Athens for the north-east Aegean, since Coriscus, who is mentioned in the *Sophistical Refutations*, does not appear in the previous eight books, and Jaeger has pointed out the significance of his name. This suggests the practice of such disputation during the period about 358–348. More is not clear, for the appearance of a manual is no guarantee of the subsequent flourishing of the corresponding art. A definitive manual may well mark the end of a fashion. And Plato's death, Aristotle's long absence from the home of argument, and the trend of his interest away from dialectic to natural science, may have in their combination caused him to lose interest in the subject in spite of being the author of the authoritative treatise on it.

Thus the *Topics* itself does not decide the question whether the exercise that it described continued, either in the Academy or in the Lyceum or elsewhere, after Plato's death. I know of no strong evidence in favour of any view. Cicero implies that it continued in the Lyceum down to and after Aristotle's death. On the other side, however, it is perhaps sometimes felt that the *Topics* was superseded by the *Analytics*, and that the discovery of syllogism in the narrow sense killed topical reasoning and the set form of debate in which it was embodied. This view seems to me mistaken. In the first place, there does not seem to be anything in the *Organon* to show that Aristotle himself regarded the *Topics* as superfluous after the appearance of the *Analytics*. On the contrary, he co-ordinates the two subjects in each work; probable reasoning is as necessary as scientific, and while the *Analytics* gives the latter the *Topics* gives the former. Moreover, as Solmsen has shown, there are fairly good reasons for declaring topical reasoning present in such late works as the *Nicomachean Ethics*. In the second place, quite apart from Aristotle's views, it simply does not seem to be the fact that the procedure described in the *Topics* is rendered unnecessary by the *Analytics*. The two kinds of reasoning are not absolutely exclusive. Although there cannot be an argument whose premisses are both certain and merely probable, there can be a topical argument that is strictly syllogistic in form. For example, it is possible to prove by the second figure of syllogism that a certain property does not belong to a certain species, and this is one of the topical forms. Thus, even when we have the theory of syllogism, we still need the *Topics* to tell us how to apply it in dialectical debate. Moreover, for any one who wishes to attain to philosophical insight, dispute will always be a well-nigh indispensable form of training, not to be replaced by knowledge of the figures of syllogism; and the *Topics* is a manual of such dispute. This is a fact that is not much recognized in modern times. The great German philosophers of the last century apparently never condescended to debate with any one; and the obscurity, confusion, and excessive length, that distinguish modern philosophical writing from ancient, are largely due to this decay. I venture to believe that the opposite point of view was natural to Aristotle, and that he did not abandon it when he discovered the theory of syllogism. For this reason I reject the idea that the *Analytics* killed topical reasoning and the set form of debate in which it was embodied, and hold that the procedure described in the *Topics* continued in the Lyceum down to the end of Aristotle's life and beyond.

We can clarify our notion of the kind of dispute implied in *Topics* VIII, and realize better the problem of its historical reality, if we compare it with other forms of Greek philosophical debate, and I will close with such a comparison of it with two forms of debate in Plato's dialogues.

Blakesley speaks of the practice as similar to that of Socrates. There is obviously a great deal of affinity to the procedure of the Socrates in the early Platonic dialogues. In each, to mention only the main point, one person propounds a thesis and thereupon becomes a passive answerer, whom the other tries to convict of error. The outstanding differences appear to be only two. First, the procedure envisaged in the *Topics* is sometimes considerably more eristical than Socrates at his worst. As Plato's early dialogues picture him, it is indeed hard not to believe that Socrates was often aware that his arguments were wholly sophistical; but, even when they are most so, it still remains clear that his aim in using sophistries was not to win the argument but to convince his interlocutor of ignorance, as he had been divinely commanded to do. He never descended to talking at the time. In many parts of the *Topics*, on the other hand, the aim is mere conquest.

It is a difficult question whence this eristical element entered into the tradition as it descended from Socrates to Aristotle. Presumably it came from the same place as those rules for competitive dialectic whose existence Aristotle mentions, but where that was it is hard to say. The Megarian school naturally comes to mind, but we know so little of it that this can only remain a guess. It may be that Euclid and his followers produced a manual of eristical technique, and that the eristical element of the *Topics* is the result of Aristotle's effort to include their achievement in his own more comprehensive work. It may also be that this element is due to the occasional presence in the Academy of strangers from Megara who attempted to win argumentative triumphs. Our knowledge of procedure in the Academy is meagre, but presumably it was possible sometimes for outsiders to enter and take part in debates. If so, the members would have to learn the tricks of eristic in self-defence.

The other great difference between the *Topics* and the procedure of Socrates in the early Platonic dialogue is that the *Topics* is much more conventionalized. For example, whereas Plato represents Socrates as falling into discussion through the accident of a chance meeting, Aristotle represents the debate as a deliberate and self-conscious exercise. Again, he expresses it in the technical terms of the predicables, which were unknown to Socrates. And so on. There is only one respect in which Aristotle's debate is freer than Socrates', and this is the form of the original thesis. In Aristotle this may be a predication under any one of the five heads; with Socrates it was always a definition.

If, lastly, we compare the procedure of the *Topics* with that in the later dialogues of Plato, which might be supposed to be closer to the actual procedure of the Academy, we find a rather curious situation. We have been assuming that the procedure of the *Topics* was actually practised in the Academy as well as in the Lyceum, and the ground for this was that such dispute must have been in existence before a manual of it could have come to be written, and that this manual was written before Aristotle left the Academy. On the other hand, inspection shows that the procedure in the later dialogues is much less like the *Topics* than is that of the early ones. If we take the *Sophist* as an example, we find that there is no semblance whatever of a competition in its procedure. Theaetetus and the stranger are in no sense opposed to each other. Theaetetus has no thesis, and the stranger is not convicting him of ignorance. What is actually happening is this. The stranger is supplying a wealth of ideas, and Theaetetus is attempting to give the most reasonable judgement on them. The function of the stranger is to make new suggestions; that of Theaetetus is to gauge the general opinion of reasonable men about these suggestions. He has to feel the pulse of common sense, or of the Academy. His own opinions do not matter, except in so far as they go to make up those of the group. It is social thinking. It is recognized that the duty of the answerer is simply to give the received opinion; 'every one who wishes to answer rightly will say the remaining one of the three' (252 e). It is admitted that there are people who refuse to recognize this convention; 'assuming that they would be willing to answer more properly than they now do' (246 d). So little conflict is there between the speakers that the stranger has to warn Theaetetus against rash assent; 'Do you agree because you understand, or has the impetus as it were of the argument drawn you into quickly assenting because you are accustomed to do so?' (236 d). The answerer is not supposed to suspend judgement. If there is the slightest balance of probability in favour of one opinion rather than another, he must choose it. The only times when Theaetetus fails to answer are when he simply cannot imagine what the group would say; 'here again I don't know what I *ought* to answer';

οὐδ᾽ αὖ πρὸς τοῦτο ἔχω τί χρή με ἀποκρίνασθαι (228 a). As soon as an idea is suggested it is taken up, so long as the group can form any probable opinion about it. Thus Theaetetus cannot by himself think of any way of dividing *διακριτική*; but as soon as a division is suggested it seems probable to him, and is therefore adopted on behalf of the group (226). The group is sometimes as narrow as the Platonic circle and sometimes as wide as mankind (229 a). The style of the stranger is that of a teacher who puts his opinions in the form of questions only in order to make sure that his pupils understand them and see how they hang together, while he does not expect to be criticized from an alien point of view. In this respect the *Sophist* is a fair sample of the later dialogues of Plato, and so we may say that the procedure embodied in them is wholly different from that of the *Topics*. There is no reason, however, why the two should not have coexisted in the Academy, and the existence of the dialogues and of the *Topics* is strong evidence that they did.

POSSIBILITY IN HISTORY

MORRIS R. COHEN

IT is generally believed that the scientifically or objectively minded historian must describe events as they actually happened and that he is not concerned with what might have been. It is the thesis of this paper that significant history always implies a reference to what would have followed if some circumstances had been different than they were. This thesis seems to me to throw much-needed light on the sharp distinction which Rickert, Windelband, and others draw between history and natural science.

The view that it is the historian's business to consider various possible alternative courses that history might have taken at any significant moment is opposed by two arguments: (1) that there is not in reality any genuine objective possibility, but that everything that has occurred was necessitated in the precise way in which it came to pass, and (2) that the realm of possibilities is so indefinitely large and so essentially indeterminate that the historian would be lost if, departing from the effort to describe what empirically happened, he were to launch on the speculative sea of what might have been. Both of these objections rest on metaphysical half-truths and can be obviated by drawing the proper distinctions, viz. (1) between absolute and relative determinism, and (2) between grounded and ungrounded possibility.

1. *Absolute versus Relative Determinism.* After ages of persistent controversy as to whether everything in human as in natural history is or is not necessitated, it seems vain to attempt any conciliation. Yet I think we can well do that if we draw a distinction between absolute and relative determinism. We may make the meaning of absolute determinism clearer by the following illustration: Take some complicated picture, cut it up into fragments all of different shapes, shuffle them up, and then let some one try to rearrange them so as to restore the totality of the picture. The solution of the problem is completely determinate in that each fragment has one and only one place where it can fit in. This picture, then, is like the Hegelian Absolute. Everything acquires its meaning by its unique position in the absolute totality. This view certainly underlies the Hegelian conception of the evolution or history of the state, religion, art, and even philosophy itself. The thought of any great thinker, e.g. Parmenides or Spinoza, had to come at the given point of time at which it did and thereby fit into the inner

dialectic development of the Absolute Spirit. Though Hegel refers to history as a progress in the consciousness of freedom, only the Absolute is really free—free in the sense that there is nothing outside to determine Him. But even the Absolute is not free to develop in any other manner than that determined by the rigid laws of the Hegelian dialectic. Every creature, or part, of the Absolute is thus rigidly determined. There can be no possibilities in the Absolute.

Limitations of space will not allow even an enumeration of the difficulties of this view. In regard to history, however, we must note how unreal time must be in such a completely monistic rationalism. But the reality of history requires time, and time means years or days, i.e. repeated or cyclical changes like the revolution of the earth around the sun or around its own axis.

Let us then modify our illustration of the picture-puzzle by allowing it to contain repetitions of pattern and by cutting it up so that various pieces are equal in size or constitute mathematical groups (i.e. some one piece may fill the place of a number of others). We shall then have a determinate system which yet allows a certain freedom of choice between different possibilities. This is exactly what we have in a physical system or a human society whose temporal transformations show the uniformities or invariant relations called laws.[1] It is a grievous error to confuse the doctrine that natural systems manifest uniformities or laws with absolute determinism which is rather the (impossible) ideal of organicism. A law holds when many *different* objects show a certain similarity of change or uniformity of relation. But if the objects are different, the given law has not determined their nature completely but only that phase of them in which they are alike. But as no finite number of abstract phases will exhaust concrete existence, no finite number of laws can completely determine the nature of things. The law of gravitation, for instance, states a pattern of relations between masses, velocities, and distances which holds of all bodies, celestial as well as terrestrial. That law, however, does not itself determine their different electrical or chemical properties. The freezing of water depends on temperature and pressure—all other considerations are irrelevant and indifferent.

Every law, then, asserts that A depends on B in a certain phase of its being and is not dependent in that phase on anything else nor on B except in the given phase. The relative independence of A and B is necessary in order that they should be two distinct terms which are related or which interact.

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[1] 'Idealists' who oppose the view that nature is governed by laws forget that it was developed by Neo-Platonists and real-idealists like Kepler, Galileo, Newton, Leibniz, and Kant.

If, then, the historian is not to fall into the fallacy of regarding every antecedent event as the cause of every consequent (*post hoc ergo propter hoc*), he must rely on true laws or necessary relations in human nature and social life, and this means that he must consider whether if a given event had not happened the succeeding events would or would not have occurred.

One point of caution must be added: While the specific laws of any sub-class must rest on and take into account the laws of the wider class, the former cannot be deduced from the latter alone. Just as the laws of chemistry must take the laws of mechanics for granted but cannot be deduced from the latter, so the laws of psychology and social science must be based on but cannot be deduced from the laws of physics. Special laws cannot be derived from general laws except by introducing special hypotheses. That which distinguished men from other bodies cannot be derived from that which men have in common with all other bodies.

2. *Grounded and Ungrounded Possibility.* Our analysis of the nature of law disposes also of the second objection to the historian inquiring into possibility—to wit, that possibilities are unlimited and indeterminate.

If there are any laws at all governing human affairs, each one of them not only gives a clue as to the consequences of given events but also rules out certain possibilities.

But are there any laws which the historian must assume?

In fields where we can ignore the differences between individuals, as in vital statistics where every birth or death, no matter of whom, equally counts as one, or where we have definite standards of measurement as in economics, such laws are known and are made the basis of daily prediction, e.g. in insurance and in other business affairs. Where our interest in individuals is greater and the principle of indifference cannot operate, our laws must necessarily take a much more complicated form, so complicated at times that it is difficult to formulate them—and all simple formulae as to human conduct have too many and diverse exceptions. Some of these, also, are so well known or obvious that we never think of formulating them. Yet we readily recognize the impossibilities that they rule out. 'Which of you when his son is hungry will give him a stone?'

In general, sanity consists in virtual knowledge or tacit assumptions as to what is and what is not humanly possible; and this we recognize when some unfortunate brother thinks it possible for his chair to turn into a snake or that he may be the King of America. But imaginative wisdom also finds many possibilities where traditional common sense sees none.

A human possibility is grounded if there are laws and facts which make it probable. We can well say that there was not a well-grounded possibility that if Napoleon had won at Waterloo he could have permanently regained his position as Emperor. All that we know of his failure as a commander in the battle of Leipzig (due to his physical decline) indicates that he could not have long maintained himself against all the armies that were marching against him in 1815. The fate of the French armies in northern Italy after Napoleon left them, and their repeated triumph when he rejoined them, provides a ground for the judgement that if Napoleon had joined the rebel forces of his native Corsica (as he came near doing) or had been killed at the bridge of Lodi, the relation between France, Italy, and Austria and the rest of Europe would have followed a different course. But we can also go on to produce evidence that the difference between such a possible course and the one that actually took place is not so great in importance as that introduced by Watt's perfection of the steam-engine and Jenner's introduction of vaccination. For these have made possible a denser population in Europe, which is the key to more basic facts of subsequent history than is the career of Napoleon.

Facts versus Laws. Our discussion enables us to illumine the antinomy between the view that history, unlike natural science, deals with unique and unrepeatable facts and the view that history is meaningless unless it can see laws or universal connexions. It is certainly true that laws cannot exhaust the uniqueness of historic events in time and being. Great Caesar crossing the Rubicon with all the circumstances of 49 B.C. is an unrepeatable event that contains more than, or is incommensurate with, all explanations of it. But everything significant about that occurrence is describable in indefinitely repeatable aspects of human nature and political life, and the importance of the given event depends on the fact that it had necessary consequences such as the founding of the Empire which has kept on playing a role in human history up to our own day. According to the school of Rickert, the historian is not to generalize but to appreciate the 'values' of actual characters and events. But values would be philosophically trivial if they could not be repeatedly embodied.

Philosophies of history are apt to be hasty generalizations of undue simplicity. Various theodicies, systems of evolution, and physical, political, economic, or other interpretations of history have all tried to make the endlessly complicated web of history conform to a pattern based on some happy guess. But this does not deny them all value as clues to an indispensable task. All really worthy effort in understanding, as in love and conduct, in the search for beauty, happiness, or holiness, must be directed at an unattainable goal.

Ethical significance. Modern logic will not support the old-fashioned methods of trying to prove ethical theorems by means of historical examples. If the Roman Republic fell through the corrupting influence of rapacious wealth, it does not follow that any modern republic will do likewise. Conditions are different to-day. Besides a republican form of government may not always be desirable. But all intelligent concern with the art of life needs to estimate the consequences of various possible modes of conduct. History helps us as a means of widening human experience. By giving our guesses or generalizations a wider base in fact it helps to make them more stable and reliable.

The acceptance of some deterministic scheme according to which everything that has happened has been the will of Allah, or the necessary consequence of the law of progress, evolution, the economic system of production, &c., not only leads to a blind worship of the brute power of the actual but dulls our vision of the finer possibilities which history tragically missed. How much better might not humanity now be if Hellenic civilization had not lost itself in Oriental despotisms but had instead turned its face under Alexander of Macedon to Italy and the West? What if the august Marcus Aurelius had, instead of persecuting the Christians, joined forces with them for both the regeneration and the clarification of the spiritual life? What if the civilization of the Near East had not been so crushed by the brutal power of the Mongols and had remained a real rival to our European culture? Such speculation may seem idle, but it gives meaning to actual history, and it makes us appreciate the great value as well as the precarious condition of humanity's great gains, in enlightenment, science, art, and nobility of spirit.

According to an American poet

> Of all sad words of tongue or pen
> The saddest are: It might have been.

But the philosopher must regard the consideration of what might have been as essential to that wisdom which is a major part of human dignity and happiness.

THE VARIETIES OF POLITICAL OBLIGATION

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I. Obligation and Sovereign Authority

IN the beginning of the modern period conscience, as 'private judgement', appeared to be a 'pretext of disobedience' causing the wars of religion, and the flagrant violation of law and right in every quarter. Unity and obedience were then the *desiderata.* Thinkers sought for a *superior* to conscience, something to bind men together into one political body. They looked to a superior *authority.*

The first thoughts were reminiscent of antiquity. Bodin represented 'the republic' as the great community in which all the divided elements—families, estates, Churches—had their existence; Hooker exalted 'the laws' as a perfectly articulated system governing all the relationships of men; Grotius and others spoke of universal 'natural right' as something worthy of common allegiance. But this was not enough authority. The modern world required effectual, positive legislation and a civil ruler, a visible chief of State, an authority in the flesh. But opinions differed as to this 'sovereign'. Hooker in England preferred a 'general council', like those of the Church, and like Parliament; Bodin favoured one-man rule or monarchy. These different ideals, and the mingling of ancient and modern notions, merely confused people; too many objects of allegiance were being offered, sometimes invisible superiors, like the Law of Nature or the Commonwealth, sometimes visible ones, Kings or Parliaments.

The confusion was increased by the introduction, largely through Grotius, of the idea of 'obligation'. The various duties of man to his fellows, to his ruler, to his Church, to his God, were all called obligations. But the term obligation was closely associated with that of 'contract', being the bond arising from a voluntary agreement. Thus Grotius used the idea of 'social contract' to explain both the institution of government and the obligation of the subjects to their duly established superior. The ground of the obligation was twofold: one, the fact of their free consent, the other, that they receive protection. But the implications of this theory were disturbing even to its author. The people were represented as an equal treating with their superior. The services rendered them under the terms of the contract might be critically scrutinized, and, if judged inadequate, might furnish a pretext for the renunciation of the bond and the allegiance. This was leaving everything once more to the unintelligent 'private judgement' of men.

To clear up all this confusion of meaning, and secure the intended sovereign authority, Hobbes first made away with all the competing authorities. He swept aside the 'invisible' ones, the idle Platonic Laws or Commonwealth. Then 'the law of nature' was portrayed as nothing but a brute law of self-preservation, a rule for animals, with nothing majestic about it. Then, confronting the actual controversy of his day, whether the visible ruler should be 'one man or a council of men', he advised a settlement by the popular method of compact: every man must agree with every other to accept a common sovereign, and thereafter abide by that decision and obey all *his* commands as laws. By such a compact the individuals appeared to create their own obligations, but they also instituted a power of enforcement. Without this superior power over them their bonds would be for ever imperfect, their community unsafe, and their own existence insecure—with it, however, they could live in a true civilized condition, with effectual laws, and peace and the orderly enjoyment of life's goods. These were the recommendations of absolute sovereignty. But Hobbes availed himself of an additional power, the sense of a moral commitment on the part of the individuals in making the contract. He stressed, too, the notion that the sovereign who played so tremendous a role in their existence was really their 'representative'. When they were 'obliged by their superior' to obey his dictates, they were, somehow, doing it for themselves. But, in truth, the will and good of all the people were sunk wholly in the will of the sovereign, who, uniting in himself all their powers and perfections, shone with high majesty. The sovereign constituted the unity of the body-politic, and therefore he actually *made* the State. He, too, was the sole law-maker, enjoying a perfect and an undisputed authority. There was nothing else in the world for the individual to be obliged to, and his obligation was simply identical with *obedience*. Political obligation was thus dissociated entirely from the free will of the persons obliged, and related exclusively to the will of the 'obliging' superior: it was a mere effect of political mastery.

2. OBLIGATION AND THE GENERAL WILL

Subsequent criticism, contemporaneous with the empirical movement in philosophy, slowly dissipated all the majesty of the personal sovereign. A generation with different experience thought differently. Locke, Spinoza, and Pufendorf wrote as if the people who could co-operate to overthrow a monarchy or invite a prince to the throne were competent to be sovereign in their own right. They were not made a people by their ruler, but, contrariwise, the sovereign was only made such by *their* action. Everywhere the theory of social contract was dominant, but with a new emphasis not favourable to absolute authority.

The theory of Pufendorf was most remarkable, a result of his study of 'the Germanic Body' with its elective ruler. The people must be 'a people' before they elect their sovereign. Hence there is a preceding contract necessary in which the ruler does not figure at all, a covenant of the individuals with each other, which of itself suffices to create bonds of union, and the 'moral person' of the State, and 'the general will'. Afterwards, indeed, this people, constituted by their own deed, may enter into a contract for government and authorize a specific ruler to give the laws which are binding upon all. However much deference Pufendorf there paid to this law-making sovereign, he evidently had a higher respect for the 'general will' of the people, for he eulogized it as the 'transcendental power' in the State, therewith recommending it as the supreme object of allegiance. This, in effect, restored an authority 'invisible', but not the old-fashioned sort, like natural law, so discredited by Hobbes because of its impotence—this authority was itself a will, and it was superior to any particular will whatsoever. The general will and not the will of a personal sovereign really *made* the State. So the first prerogative was taken away from the sovereign.

Then came Montesquieu, student of polities in all their variety. More realistic than doctrinaire, he noted how a country's laws are related both to the people and the external conditions of their existence. Simply to disclose that fact, that the law sustained such other relations besides that of issuing from the will of a sovereign, was to rob the latter relation of its exclusive importance. But it was further observed that customs and morals have quite as 'imperious a rule' as decrees from authority, and, indeed, that the force of all the latter is entirely conditioned by the general 'spirit of the laws' in every community. Here was another demonstration of a moral superior to the titular sovereign, and this general spirit is the ultimate source of the laws of a society. So another prerogative was gone, that of Law-Maker.

Eventually the sovereign was not even deemed to be a competent executive, that is, 'the government' in the proper and limited sense. Locke began this line of depreciation when he spoke of Civil Government as a quite specific function in the social order; to specify a power is to limit it. Montesquieu went farther, to disperse the powers of governance among three distinct bodies. But Abbé de St. Pierre, in his *Plurality of Councils*, proposed a complete administrative pluralism, suggested by the Regency in France: the affairs of State are to be managed by 'councils', each particular body being held to its rightful function by the influence of all the others whose interest it is to maintain the system as a whole. Such co-operation is possible without any compulsive direction from a monarch. The true government is then a self-contained body of self-governing councils. Here was a system actually dispensing with the services of the sovereign as a chief executive.

Divested of such high prerogatives as those of founding the State, making its law, and governing it, the person of the sovereign had all but lost his reason for existing. Still a deep-seated, primordial belief existed in the necessity of a Chief of State to provide for the security of the society and its fundamental laws, which was the reason why many writers had held to the old notion of contract, that for protection and peace men give over to certain persons the right to govern them. It remained for Rousseau to examine this ground of obligation and expose its falsity. The 'subjects' are secure only so long as they obey the laws dictated by their 'superior'; never when they want to do their own bidding. The contract binds them to carry out the will of the sovereign, who, in turn, is only bound to see that they do it. So this is an irrational and an unrighteous agreement, wherein men voluntarily renounce all will save that of their master. Their security is not that of free persons. Such a *secured slavery* is no ground whatsoever for an obligation.

The sovereign, as an enemy of the people and of justice and liberty, was now altogether devoid of majesty and valid authority. Obedience to his commands and will was one thing, true personal allegiance another. Rousseau made this very clear: 'It is not a question of a power we are forced to obey but only of one we are *obliged to recognize*.' Henceforth the obligation of the individual must not be thought of in relation to the external superior, but to the will of the persons 'obliged'.

This reversal of emphasis and interest was momentous. Preceding thinkers subordinated obligation to their ideal of some external authority; Rousseau was looking for an authority that would fit his ideal of obligation as something self-imposed. The older maxims ran: 'no man can lay himself under an obligation to law, that is, law as coming from a superior', and it seemed obvious that no single individual could be the superior to himself. Nor did it seem possible for the laws to be a superior: 'the laws cannot oblige, but only the power of a superior who makes them'. Thus either a government of laws or a self-government was excluded, axiomatically. But Rousseau, perceiving that obligation must be really distinct from the mere power of a superior, braved that logic, and tried out the hypothesis of a new 'form of republic' where the individuals lay themselves under obligation, and give themselves laws, and govern themselves. To the objection that there must be something superior to the individual his retort was: the individuals are not doing this in isolation, but together, by a social compact, and the whole of them thus working together *constitute a superior for any one of them.*

The true sovereign is then the whole body. The power that obliges is that will for life in common which is there if the people exists as such at all. This power each one is 'obliged to recognize' because it is at once his own will and the will of all the others in the association. That will makes the State, makes the laws, and in the largest aspect really governs the people. By its nature belonging to all as a whole, it cannot be identified with or conferred upon any particular individual, thereafter miscalled the sovereign; and it cannot act at any time in the exclusive interest of any one—every act must be equal and just, that is, it must have the form of law. Thus the general will is the true sovereignty. And the obligation of the individual is to a ruling power within himself and recognized by him as a morally supreme authority, the *social conscience.*

3. OBLIGATION AND RIGHT

Rousseau applied his principle of self-government to the case of an international society. Interested for a long time in the possibilities of federating the smaller States so as to check the arrogant power of monarchies, he was highly appreciative of St. Pierre's *Project for Lasting Peace* which suggested a general union of all the nations large and small in a league to secure peace. In its original form this project relied on the checks and balances of self-interest alone, as in the system of government by many councils. Rousseau transformed the scheme, however, by representing such a general federation as veritably an 'European Republic' organized for a permanent peace *with justice*, instead of merely for a peace by a balance of power where the States still continue to regard their relations to each other as fundamentally and inevitably one of a state of war. The business of the association was to find justice and the law as well as to keep them; to produce a common opinion of the right along with the co-operation of all in maintaining a peace. This introduced the element of obligation in addition to self-interest as a factor in the society of nations.

But the obligation in this case could not be conceived exactly on the lines of the obligation of the citizen to the general will. There was no imaginable 'super-sovereign' *will* here; nor any law with the weight of solid tradition; nor any kind of recognized authority. The only idea which seemed relevant was that of 'contract'. It had always been thought, of course, that in some sense obligation only exists in virtue of covenant. But most of the writers had been more interested in the overawing power which enforces agreements between parties than in the actual process of making terms between equals who acknowledge no superior. This process Rousseau studied. And he perceived that the conditions of negotiating a general pact in the absence of any 'superior' are such as to educate all the parties in respect to 'the right'. In coming together, at first merely from a sense of their own interests, they confront not only each other but their differing claims; they must, therefore, confer about these pretensions to right. In working at a policy together, they clear up their original views of their national needs, or rights, and discern a common interest and some general rule or law. By such association, then, they learn to know what is good for themselves and for the general society, and that determines what is the true law for all who are members of the society. Because they have won this knowledge of the 'common and constant rule' all together, they are one and all committed to it, that is to say, they are *obliged.* The obligation thus arises from the process of covenanting alone and is valid for the future because those who are obliged have participated in making the history of the world they are then living in. The obligation is founded, therefore, on that democratic way of dealing and establishing law and rights. And this conception may be carried back from the sphere of international relations to the relations of individuals within the State. There is obligation in politics wherever the procedure taken is by fair presentment and hearing, by agreement through understanding, and by concerted action. And this was Rousseau's last counsel of wisdom to the harassed citizens of Geneva whose peace he had troubled: 'Whatever part you choose to take, even if it is one bad in itself, take it together; by that very action alone it will become the best course to take; and you may be sure that you will always do what *ought* to be done, provided only you do it in concert.' What issues from such proceedings is always 'the right', and it is this universal right, and not any 'sovereign' power, not even the power of the general will, that human beings are ultimately 'obliged to recognize'.